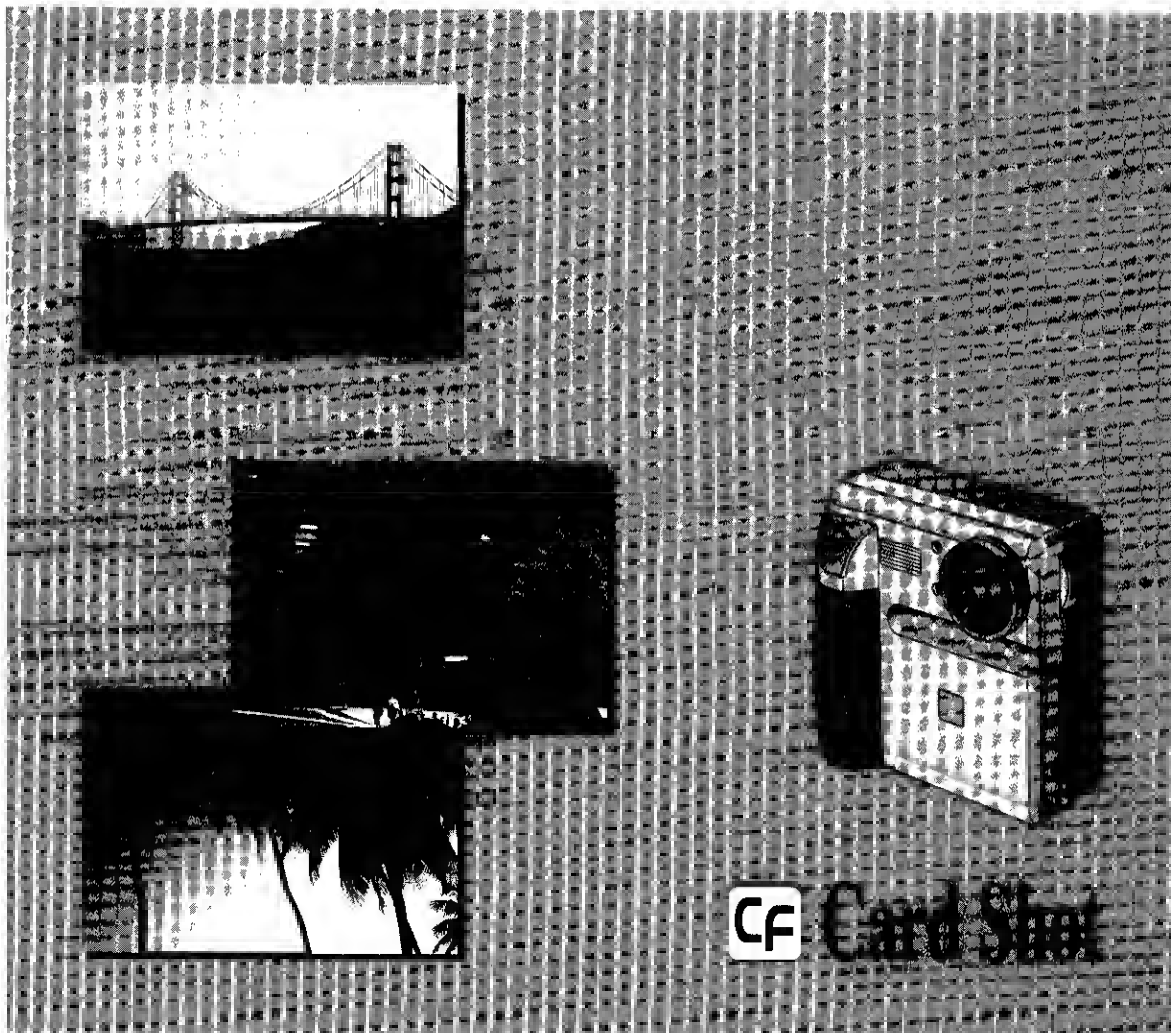


Panasonic

Digital Still Camera

Operating Instructions

Model No. **NV-DCF1A**



Before use, please read these instructions completely.

VQT6994

Information for Your Safety

WARNING

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES AND DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

FOR YOUR SAFETY

■ DO NOT REMOVE OUTER COVER.

To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

Digital Still Camera

- The rating plate is on the rear side under the LCD Screen of the Digital Still Camera.

AC Adaptor

- The rating plate is on the top side of the AC Adaptor.
- As this equipment gets hot during use, operate it in well ventilated place; do not install this equipment in a confined space such as a book case or similar unit.

IMPORTANT

- Recording of pre-recorded CF cards or other published or broadcast material for purposes other than your own private use may infringe copyright laws.
- Try out the Digital Still Camera.
 - Before you go out to record your first important event, please try out all the versatile functions of this Digital Still Camera so that you can make full and correct use of its many advanced capabilities.
- Carefully read the Operating Instructions and use the Digital Still Camera correctly.
- Injury or material damage resulting from any kind of use that is not in accordance with the operating procedure explained in the Operating Instructions is the sole responsibility of the user.

Contents

Preparations

Standard Accessories	4
Read this first	4
Controls and Components	5
Using with Alkaline Batteries	7
Connecting the AC Adaptor	8
Charging the Rechargeable Ni-Cd Batteries	9
Inserting the CF Card	10
Attaching the Hand Strap	12
Putting the Camera into the Soft Case	12
Setting the Date and Time	13

Basic Operations

Recording	15
Recording with a Different Image Resolution	16
Adjusting the Brightness of the LCD Screen	17
Playback	18
Viewing on TV	19

Advanced Operations

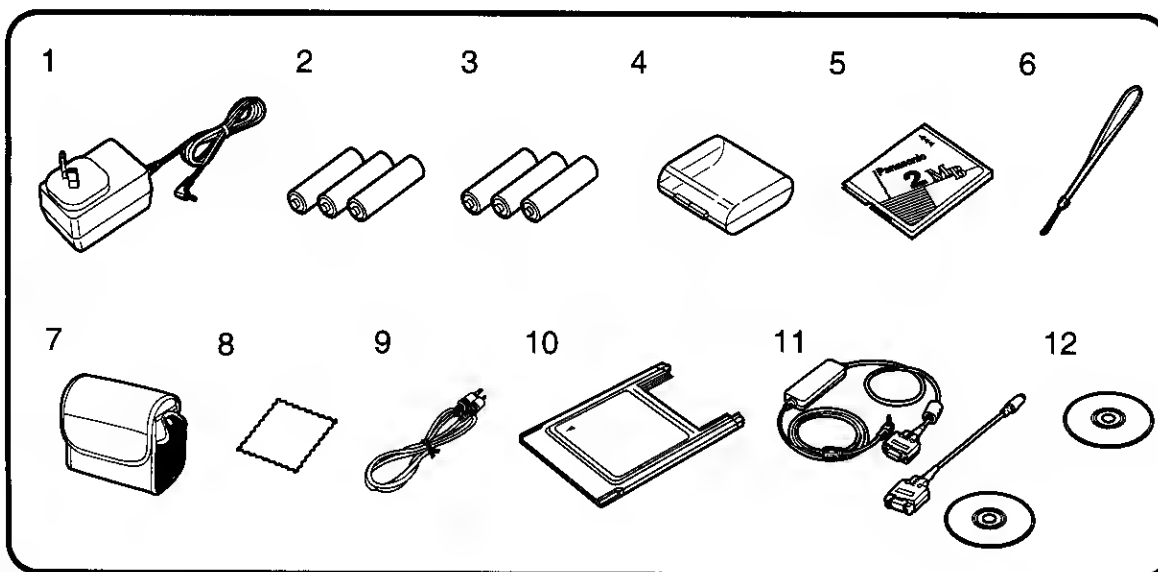
Using the Flash	20
Recording with Brightness Compensation (Exposure Compensation)	21
Recording with Manual White Balance	22
Viewing Photographic Film Negatives as Normal Positive Images	24
Using the Self-timer	25
Recording with Zoom In/Out (Macro)	25
Viewing Multiple Images on One Screen (Multi-image Playback)	26
Erasing One Image at a Time	28
Erasing All Recorded Images	29

Editing

Importing Images Using Your Notebook Computer's PC Card Drive	30
Editing with a Personal Computer Connection Kit (for Windows 95)	31
Connections	32
Installation (for Windows 95)	33
Editing with a Personal Computer Connection Kit (for Macintosh)	35
Connections	36
Installation (for Macintosh)	37

Precautions, etc.

Precautions	39
Specifications	42
Before Requesting Service	43



Standard Accessories

- 1 AC Adapter (→ 8)
- 2 LR6 Alkaline Batteries (→ 7)
- 3 Rechargeable Ni-Cd Batteries (→ 9)
- 4 Battery Case (→ 41)
- 5 CF (Compact Flash) Card (2 MB) (→ 10)
- 6 Hand Strap (→ 12)
- 7 Soft Case (→ 12)
- 8 Cloth for LCD Screen (→ 40)
- 9 Video Output Cord (→ 19)
- 10 PCMCIA Adaptor (→ 30)
- 11 Personal Computer Connection Kit
(→ 31, 35) VFA 0177
- 12 Application CD-ROM
(See the enclosed installation instructions for details.)

Read this first

•Try out the camera beforehand.

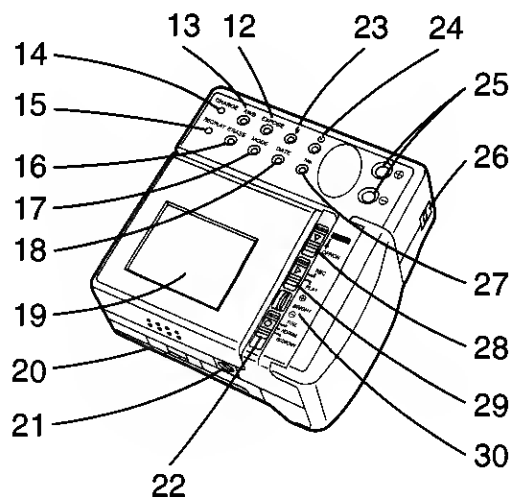
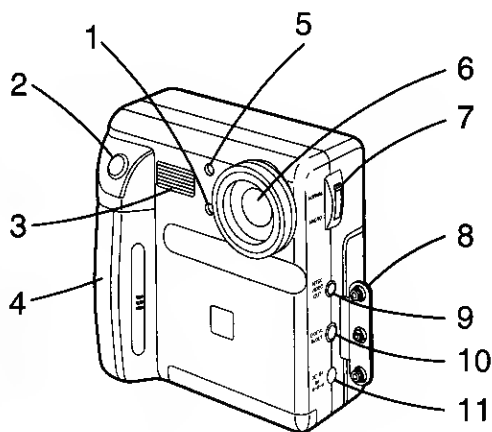
Before recording important events (a wedding or other occasion), try out the camera and check that it records properly and functions correctly.

•We cannot compensate for recording malfunctions.

We regret to inform you that we cannot compensate for any events unable to be recorded due to malfunctions of the camera or CF card.

•Be aware of copyrights.

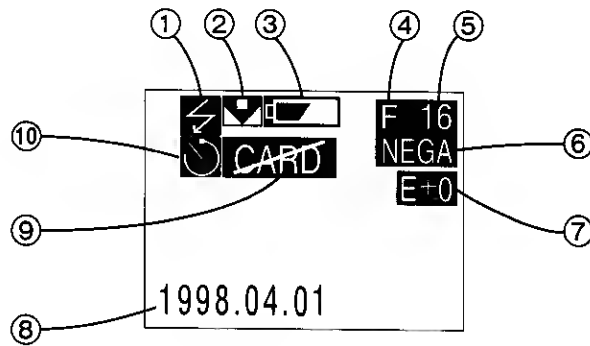
Recording material for purposes other than your own private use may infringe copyright laws. There may also be some restrictions on the material that can be recorded for private use.



Controls and Components

Main Unit

- 1 Self-timer Lamp (→ 25)
- 2 Shutter Button (→ 15)
- 3 Flash Emitter (→ 20)
- 4 Battery Housing (→ 7)
- 5 Light Sensor (→ 20)
- 6 Lens
- 7 NORMAL/MACRO Lever (→ 24, 25)
- 8 Rubber Cap
•Open when using the terminals.
- 9 NTSC VIDEO OUT Terminal (→ 19)
- 10 DIGITAL IN/OUT Terminal (→ 32, 36)
- 11 DC IN Terminal (→ 8)
- 12 EXPOSE Button (→ 21)
- 13 AWB (White Balance) Button (→ 22, 24)
- 14 CHARGE Lamp (→ 9)
- 15 REC/PLAY Lamp (→ 13, 15, 18)
- 16 ERASE Button (→ 28, 29)
- 17 MODE Button (→ 24, 26)
- 18 DATE Button (→ 13)
- 19 LCD Screen (→ 6)
- 20 CF Card Insertion Port (→ 10)
- 21 Tripod Socket
•Used when securing the camera to a tripod.
- 22 Image Resolution Switch (→ 16)
- 23 Flash Button (→ 20)
- 24 Self-timer Button (→ 25)
- 25 \oplus/\ominus Buttons (→ 13, 18)
- 26 Hand Strap Holders (→ 12)
- 27 No. Button (→ 15, 18)
- 28 POWER Switch (→ 13, 15, 18)
- 29 REC/PLAY Switch (→ 13, 15, 18)
- 30 LCD Brightness Knob (→ 17)



LCD Screen

The screen shown above is for the purpose of explanation only. The actual screen may differ somewhat in its details.

① Flash Modes (→ 20)

- Red-eye reduction
- Flash off
- Flash on
- Auto... The emission of the flash is determined by the brightness. Before it goes off, it will light up in red.

② White Balance (→ 22)

- This is displayed when manually adjusting the white balance.

③ Remaining Battery Power

- This indicator lights up when the battery runs low and blinks when it is running out. Power runs out approximately five seconds later.
- This indicator can be cancelled with the No. Button.

④ Image Resolution Mode (→ 16)

F: FINE
N: NORMAL
E: ECONOMY

- The current selected mode is displayed during recording.
- The mode set during recording is displayed during playback.

⑤ During Recording...Remaining Images Able to Be Recorded (→ 15)

- This indicator displays how many more images can be recorded.

During Playback...Playback Image Number (→ 18)

- This indicator displays the number assigned in the recording order. Erasing an image moves the following image numbers up.

⑥ Negative (→ 24)

- This indicator is displayed when viewing negative images.

⑦ Exposure Compensation Value (→ 21)

- The compensation value is displayed when the EXPOSE Button is pressed.

⑧ Date/Time (→ 14)

- Each time the DATE Button is pressed, the display changes to Date→Time→No Display.

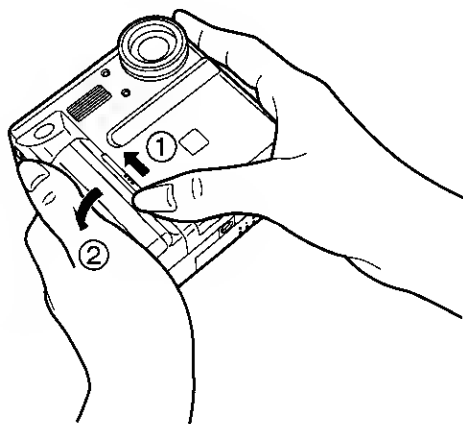
⑨ CF Card Warning

- This indicator lights up when no CF card is inserted.
- This indicator blinks when the inserted CF card cannot be used.

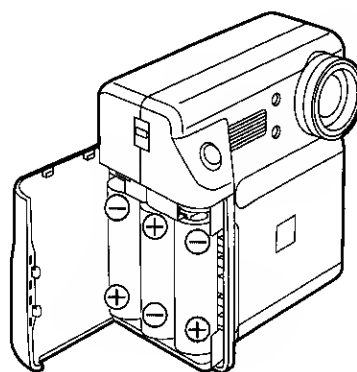
⑩ Self-timer (→ 25)

- This indicator is displayed when recording with the self-timer.

1



2



Using with Alkaline Batteries

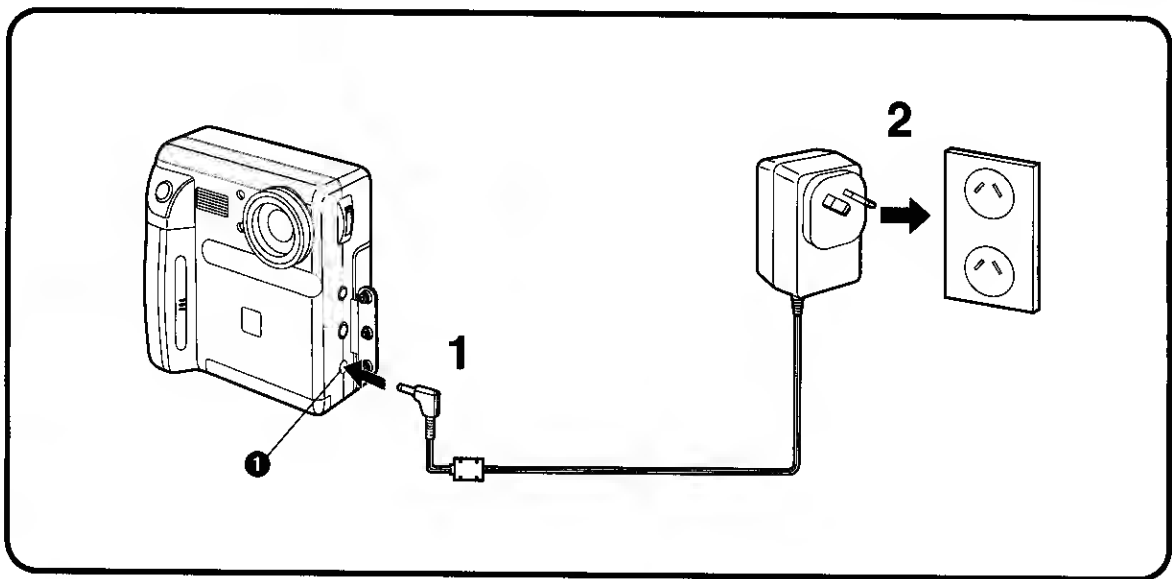
The Camera can be operated immediately if alkaline batteries are used.

1 Open the battery cover.

- ① Push the lever up.
- ② Open the cover.

2 Insert the batteries and close the cover.

- Check that the \oplus and \ominus of the batteries are inserted in the correct direction.
- Be sure to always use size LR6 alkaline batteries (or lithium batteries).
- Be sure that the power is turned off when taking out or inserting the batteries.
- If the AC Adaptor is connected, remove the adaptor before inserting the batteries.
- Alkaline batteries are prone to shut off suddenly when used in places with low temperature (10°C or below). The use of rechargeable Ni-Cd batteries is recommended for such places.
- Remove the batteries if the camera will not be used for a long period of time.



Connecting the AC Adaptor

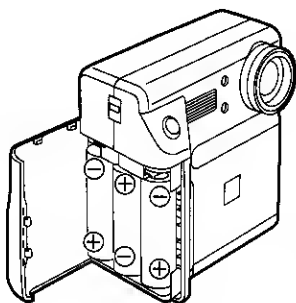
You can use the camera indoors without worrying about the batteries running out of power.

1 Connect the AC Adaptor to the camera DC IN terminal ❶.

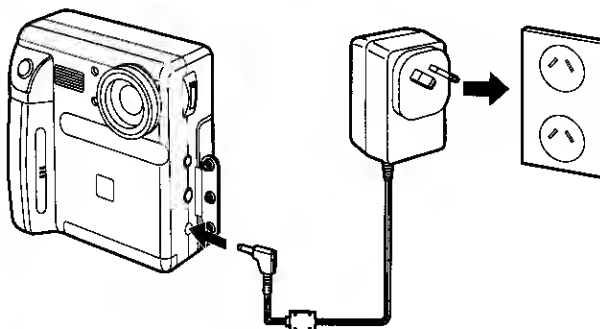
2 Insert the power plug into the outlet.

- Be sure to use only the special AC Adaptor (supplied) for this camera.
- Connect the AC Adaptor only after checking that the camera is turned off.
- Disconnect the AC Adaptor when not in use.

1



2



Charging the Rechargeable Ni-Cd Batteries

The rechargeable Ni-Cd batteries are not charged at the time of purchase. Therefore, first connect the AC Adaptor to the camera and charge the batteries.

1 Insert the rechargeable Ni-Cd batteries.

- Insert the batteries in the same way as the alkaline batteries. (→ 7)

2 Connect the AC Adaptor.

- Connection procedure (→ 8)

- The batteries are charged at the camera.

The CHARGE lamp lights up to indicate that charging has started. After about eight hours, the batteries are fully charged and the CHARGE lamp goes out.

- Be sure to use only the rechargeable Ni-Cd batteries supplied with this camera.

- The batteries cannot be charged when the REC/PLAY lamp on the camera is lit (when the power is on).

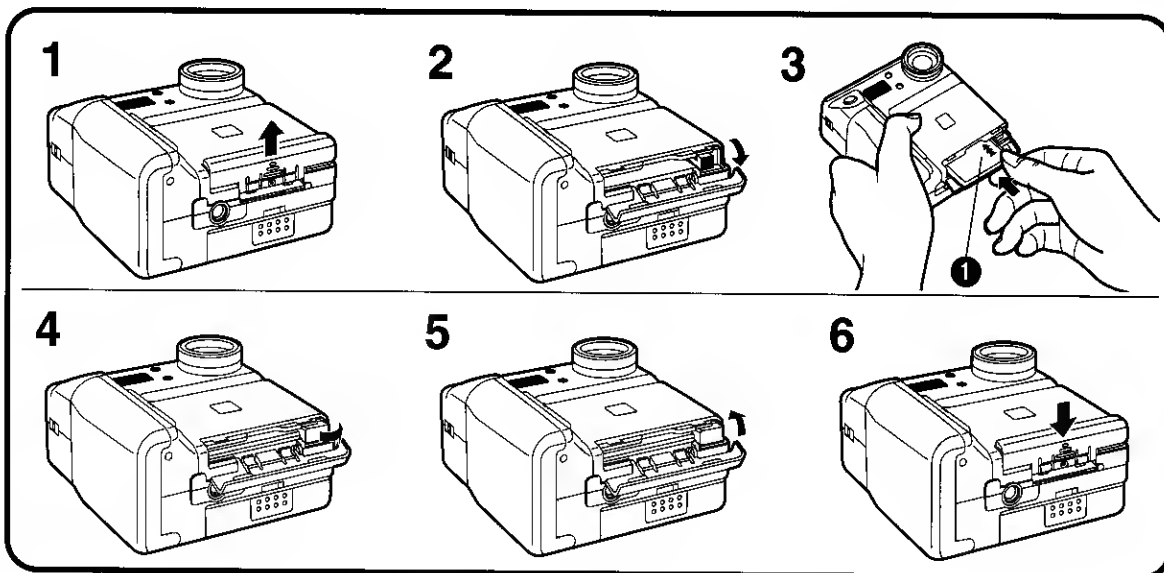
Turning the power switch off lights up the CHARGE lamp and starts charging.

- Charging of the batteries in the camera body starts when the Power switch is turned from on to off with the AC Adaptor connected to the camera. (The CHARGE lamp lights up.)

If charging does not start even when the designated rechargeable Ni-Cd batteries are set in place, check that the AC Adaptor is connected, and then turn the Power switch on and then off again.

- After charging, remove the batteries if the camera will not be used for a long period of time.

- For safety reasons, the camera can only charge the rechargeable Ni-Cd batteries specified in this Operating Instructions.

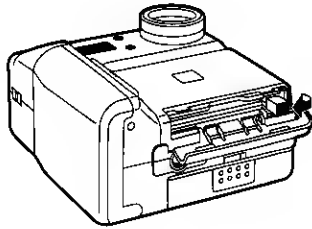


Inserting the CF Card

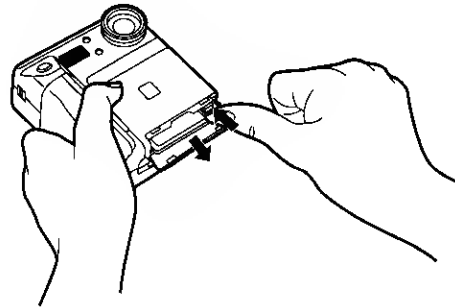
The supplied CF card has a capacity of 2 MB.
Turn the camera off and perform the following procedure.

- 1** Slide the cover.
- 2** Open the cover.
- 3** Insert the CF card.
 - Insert the CF card so that the side with the ▲ mark ❶ faces the direction shown in the figure.
 - Push the card fully into the slot until it stops.
- 4** Turn the Eject Button anti-clockwise.
- 5** Close the cover.
- 6** Slide the cover back to its original position.

1



2



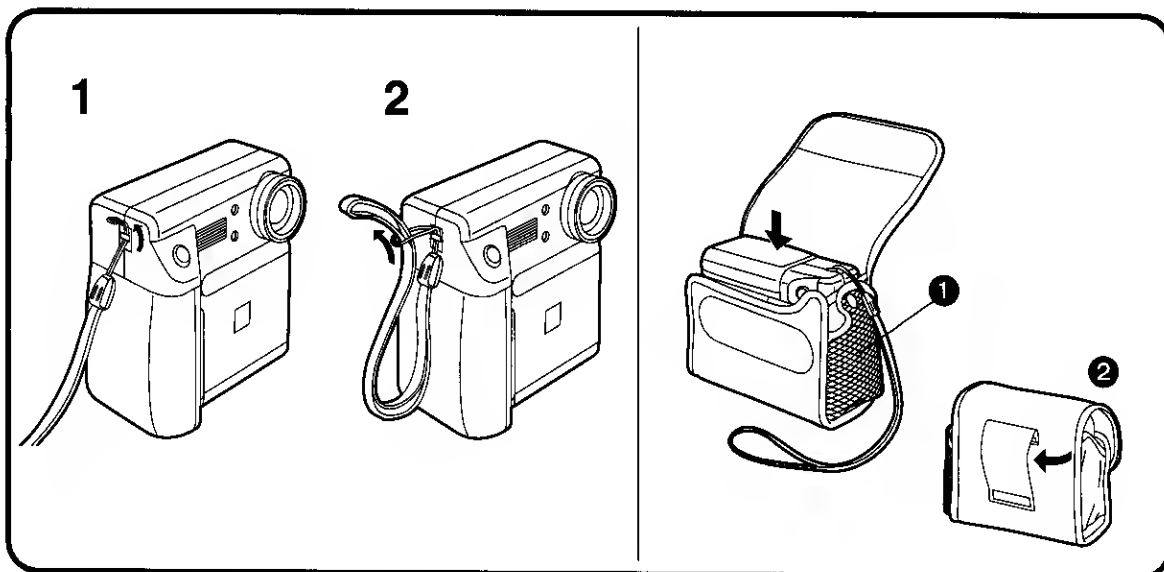
Removing the CF card

1 Open the cover and swing the eject lever clockwise.

2 Press the Eject Button.

• The card comes out.

- CF cards are currently available in 4 MB, 10 MB, and 15 MB capacity.
The larger capacity cards can hold more images.
- Do not under any circumstances eject the card immediately after pressing the Shutter Button (while recording an image) or while erasing (when ERASE or ALL ERASE is flashing). This could damage the format of the card and make it unusable.
- Make sure that you do not insert the card in the wrong direction.
- Make sure to close the cover after ejecting or inserting the card.
- If the card is ejected when the power is on, the power will be automatically shut off.
- If the card is not inserted when the power is turned on, **CARD** will light up on the LCD screen. Also, if the inserted card cannot be used, **CARD** will blink.
- When the card does not eject after pressing the Eject Button, push the card fully into the slot again and then press the Eject Button firmly.
- Pushing the Eject Button when the card slot is facing downwards can cause the card to fly out.
Be careful that the card does not fall out when ejecting since this could damage the card.



Attaching the Hand Strap

Attach the hand strap as shown in the figure so that the camera does not drop accidentally. Pass your hand through the strap when using the camera.

- 1** Pass one end of the hand strap through the hand strap holder.
- 2** Pass the other end of the hand strap through the hand strap loop that has been passed through the holder, and then pull tight.

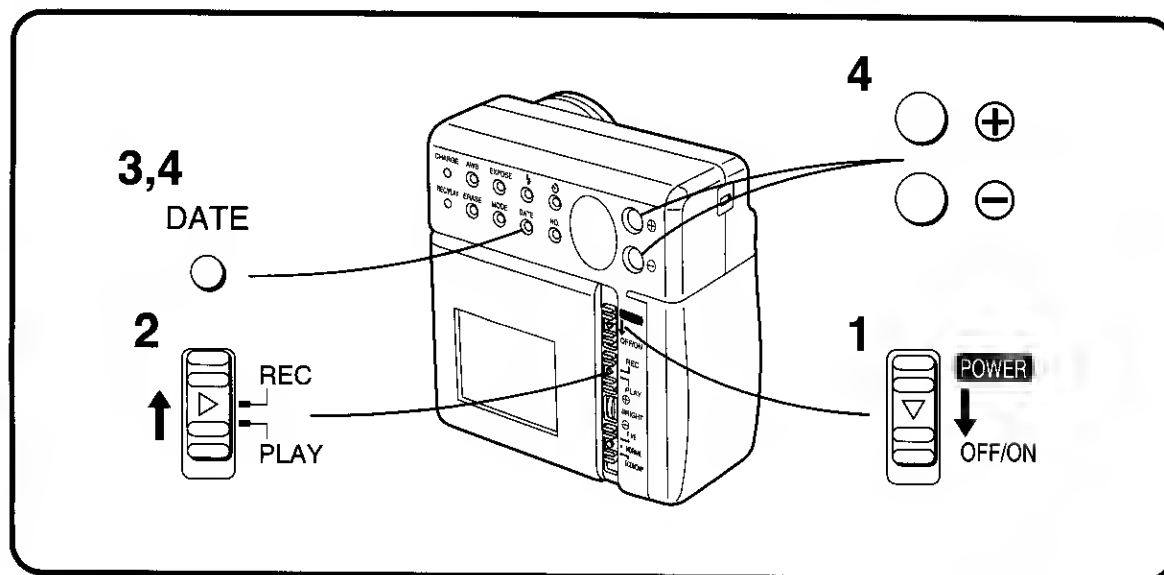
• Be careful that the camera does not strike anything when using the strap to carry the camera.

Putting the Camera into the Soft Case

The soft case is useful for carrying the camera during trips.

Put the camera into the soft case as shown in the figure.

- 1** Spare alkaline batteries can be stored in the side pocket.
- 2** You can carry the case on the waist by passing the belt through the case strap.



Setting the Date and Time

Even if the batteries are not inserted or the AC Adaptor is not connected, the backup power supply in the camera will store the time setting for approximately 24 hours. Once this runs out, the time setting will be erased. When this happens, please reset the date and time.

- 1 Turn the power on.**
 - The switch will return to its original position.
- 2 Set the REC/PLAY Switch to "REC".**
 - The REC/PLAY lamp lights up in red.
- 3 Press the DATE Button down for two seconds or more.**
 - The date is displayed on the LCD screen and the year setting flashes.
- 4 Use the \oplus and \ominus Buttons to adjust the setting, and then press the DATE Button to go to the next item. The order is Year→Month→Day→Hour→Minute.**

Year: 1996→1997→...→2095→1996→...

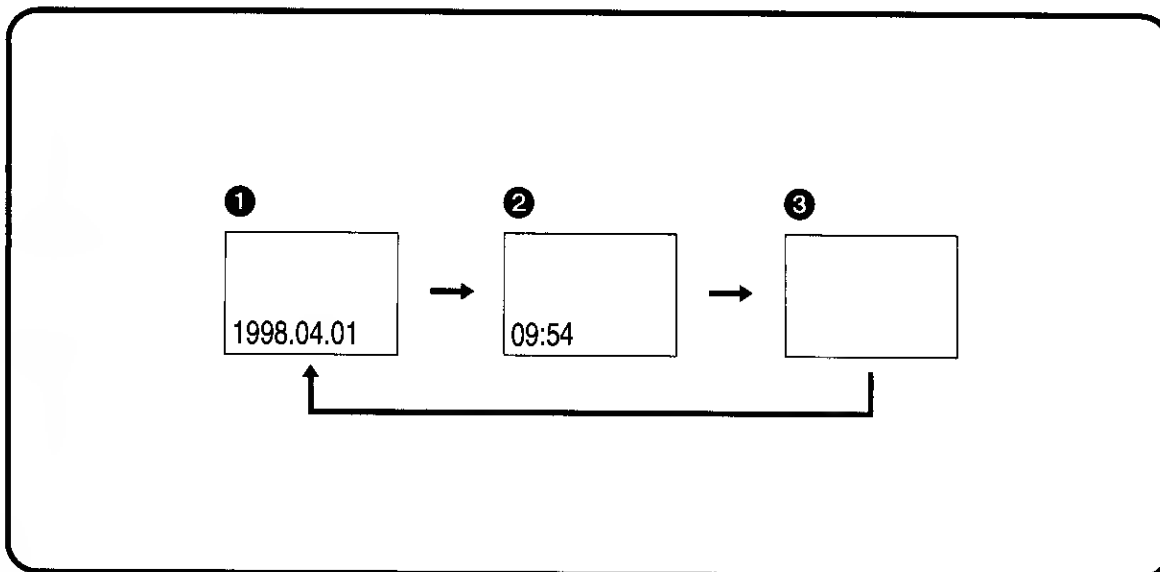
Month: 01→02→...→12→01→...

Day: 01→02→...→31→01→...

Hour: 00→01→...23→00→...

Minute: 00→01→...59→00→...

- The clock starts when you press the DATE Button after setting the minutes.



- The year is set to 2000 at shipping, and so please use the ⊕ or ⊖ Buttons to set the correct year.
- Keeping the ⊕ or ⊖ Button pressed will keep the numbers changing continuously.
- When setting the day, each month is displayed up to the 31st. This is not a malfunction. After setting, the day is automatically corrected. (For example, a setting at February 31 becomes March 1)
- The date and time cannot be set when the REC/PLAY switch is at PLAY.
- Even if the date/time is not displayed when the image is recorded, the date/time is automatically stored during recording so that the date/time can be displayed during playback.
- If the date/time is not set or was erased after being set, the LCD screen will flash "2000.01.01" (and the time as 12:00) during recording. This will be recorded for the image.

To correct the date/time after setting

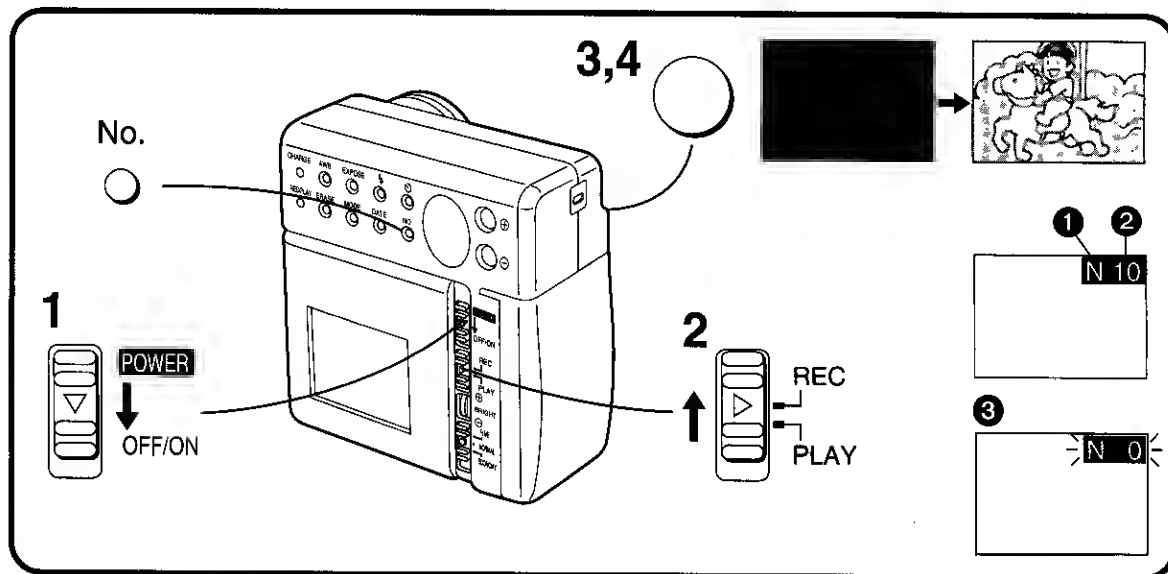
1. Press the DATE Button down for two seconds or more. The year setting flashes.
2. Press the DATE Button until the desired setting item flashes.
3. Finally, set the correct minute setting and press the DATE Button.

Displaying the Date and Time

The display changes each time the DATE Button is pressed.

- ① Date
- ② Time (hours: minutes)
- ③ No Display

- The date and time cannot be displayed simultaneously.



Recording

- 1 Turn the power on.**
 - The switch will return to its original position.
- 2 Set the REC/PLAY switch to "REC".**
 - The REC/PLAY lamp lights up in red.
- 3 Press the Shutter Button.**
 - The REC/PLAY lamp flashes. While the lamp is flashing, the LCD screen turns black. Then, the recorded image is displayed for about three seconds.
- 4 To take pictures repeatedly, press the Shutter Button once the LCD screen returns to the moving picture.**

- Try not to get your fingers in front of the lens or flash.
- Do not aim the lens directly toward the sun.
- Do not subject the LCD screen to pressure or severe impact.

Display of Image Resolution Mode/Remaining Images Able to Be Recorded

You can select to display or eliminate this indicator by pressing the No. Button.

- 1** Image resolution mode
- 2** Remaining images
- 3** The indicator flashes when the remaining images reaches "0". (No further recording is possible.)

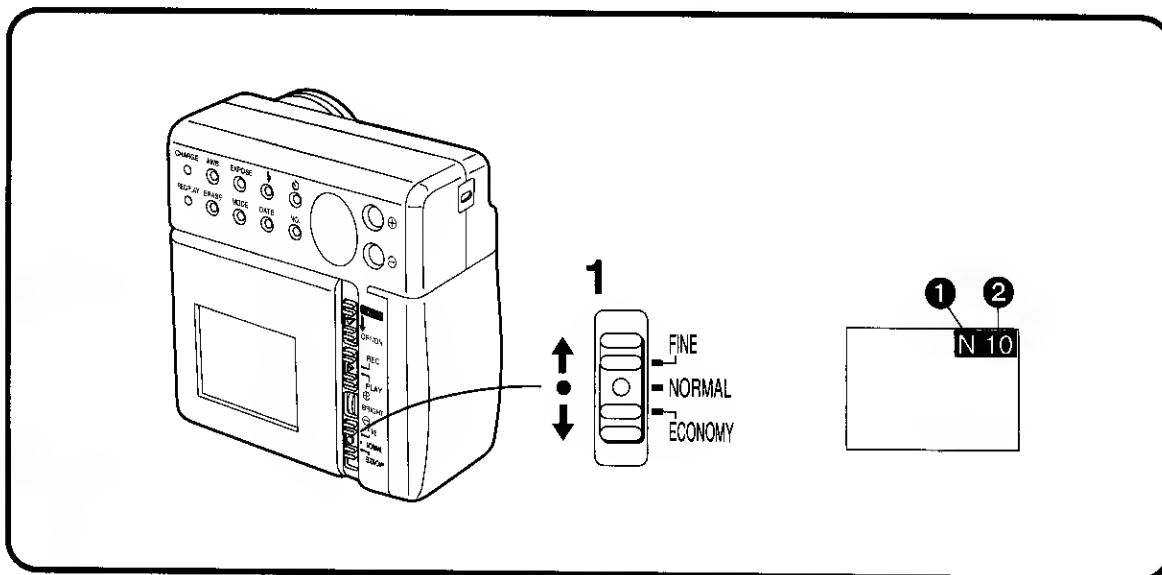
- Once an image has been recorded, the next image cannot be recorded until the LCD monitor returns to the moving image. The camera is storing the image during this time.
- The flash goes off automatically when it is dark (during Auto flash operation). (→ 20)
- If no camera operations are performed for more than one minute when the power is on, the power save function automatically turns the power off. (Auto Power Off) You must turn the power on again when you want to operate the camera.
- Do not under any circumstances unplug the AC Adaptor or take out the batteries immediately after pressing the shutter button (while the image is being recorded). This could damage the format of the CF card and make it unusable.
- Take spare batteries when you go out to take pictures. When traveling, make sure that you can recharge the rechargeable Ni-Cd batteries at your location. Do not forget to bring the AC Adaptor.
- When taking pictures with your gloves on, be sure to pass your hand through the handstrap so that you do not drop the camera.

Maximum Recording and Playback Time

(At a temperature of 20°C)

	Recording Time	Playback Time
Using the Supplied Alkaline Batteries	Approx. 30 min.	Approx. 60 min.
Using Rechargeable Ni-Cd Batteries	Approx. 55 min.	Approx. 85 min.

- The usage time may be shorter depending on the actual usage conditions.



Recording with a Different Image Resolution

You can change the Image resolution when taking pictures.

1 Select the image resolution mode.

Examples of Information displayed on the LCD Screens

① NORMAL mode is selected

② Remaining recordable Images in NORMAL mode

- Three types of image resolutions can be selected.

Select the resolution according to the purpose.

FINE (Displayed as F)

Use this setting when recording important Images or when the images will be loaded into a personal computer for editing.

NORMAL (Displayed as N)

Pictures should usually be taken with this setting.

ECONOMY (Displayed as E)

Use this setting when images will be kept temporarily (images which may be erased later) or when you wish to record many images.

- You can change the image resolution at any time.

As a general guideline, one "FINE" image corresponds to two "NORMAL" Images and four "ECONOMY" images.

Image Resolution Mode and Number of Recordable Images

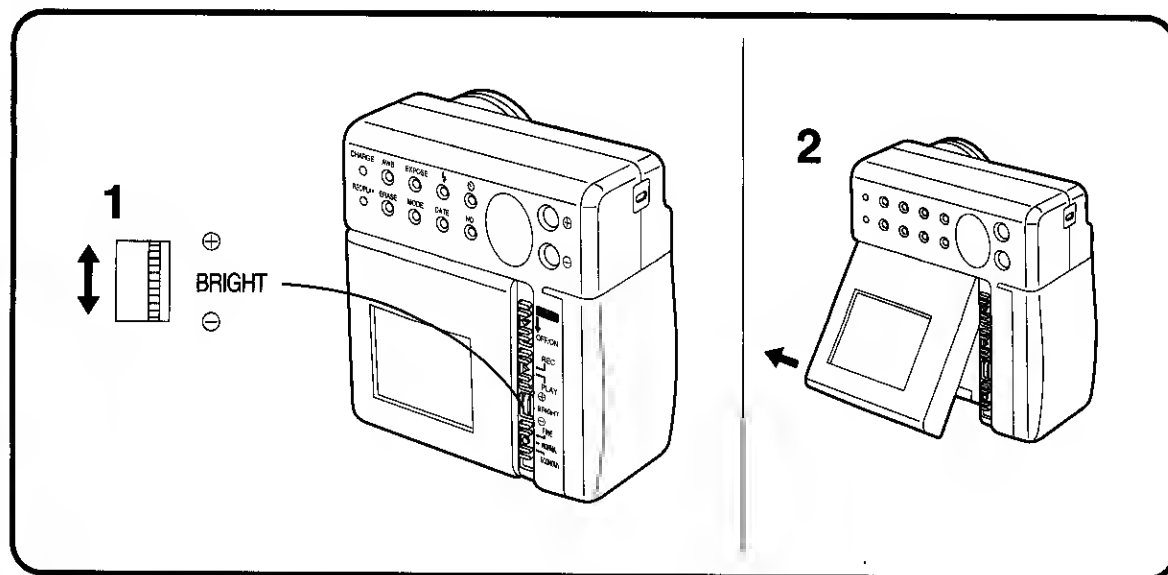
Number of recordable images using the supplied CF card (2 MB)

FINE: approx. 11 images

NORMAL: approx. 23 images

ECONOMY: approx. 47 images

- The number of recordable images above is a general guideline for when all of the images are recorded in the same mode.
- The number of recordable images may increase depending on number of the recorded subject. (After recording, the remaining recordable images may not decrease.)
- The number of recordable images can be increased by using a commercial CF card with a larger capacity (4 MB, 10 MB, 15 MB).



Adjusting the Brightness of the LCD Screen

1 Adjust the LCD Brightness Knob.

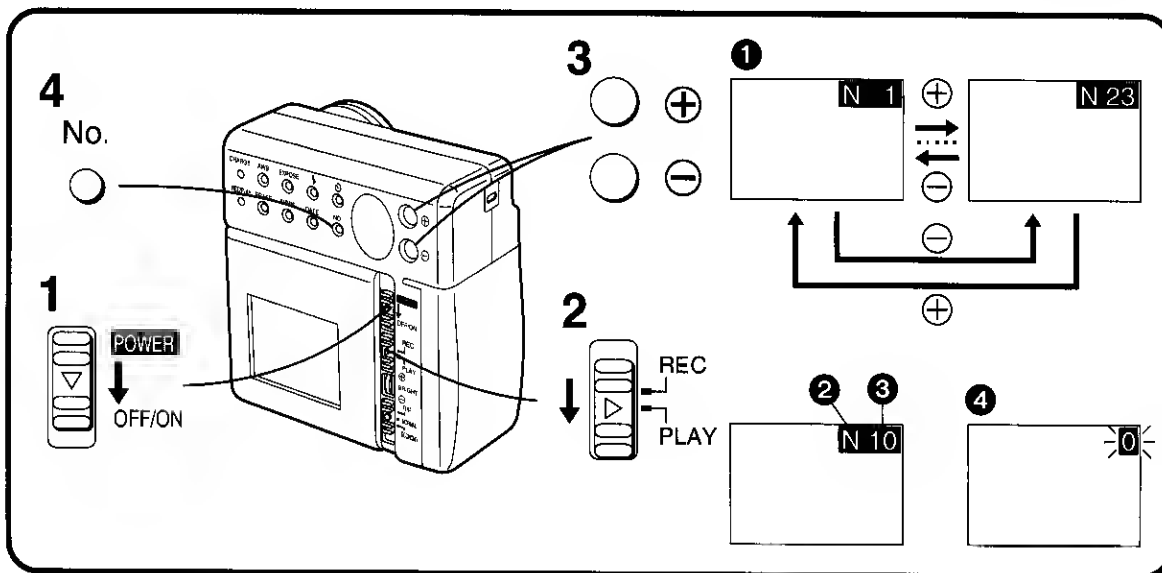
- ⊕ direction: Increases brightness
- ⊖ direction: Decreases brightness

- Adjust the brightness when the surrounding brightness makes the screen difficult to see.
- This does not affect the brightness of the recorded image.

Adjustment of the LCD screen angle

2 Adjust as shown in the figure.

- Adjust the tilt of the LCD screen to improve visibility in bright surroundings or to change the angle when recording. The LCD screen has an approx. 40° adjustment range.

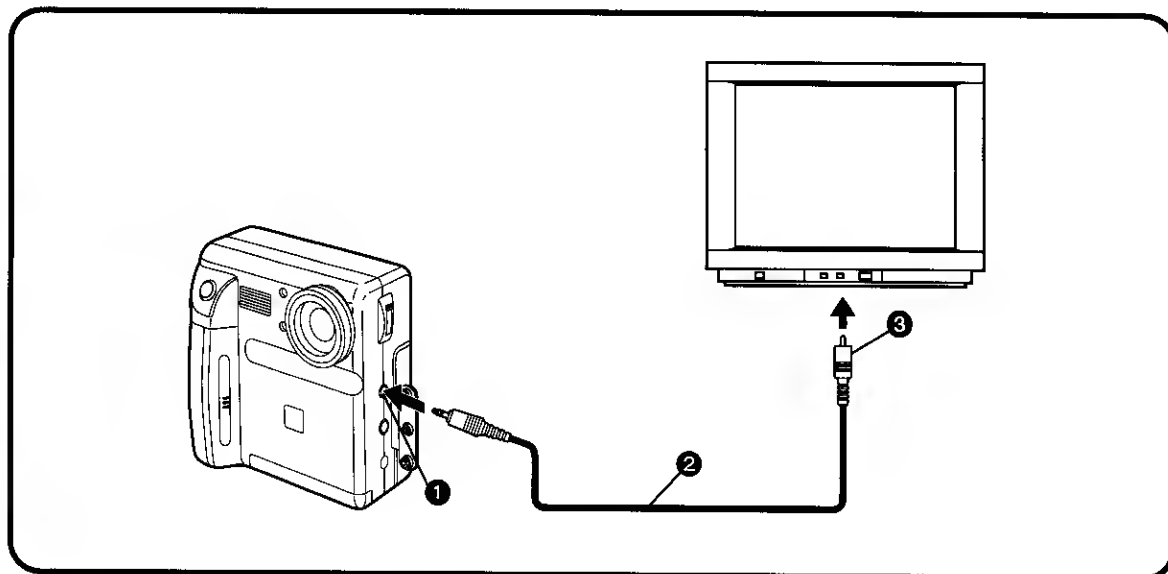


Playback

- 1 Turn the power on.**
 - The switch will return to its original position.
 - 2 Set the REC/PLAY switch to "PLAY".**
 - The REC/PLAY lamp lights up in green, and the last recorded image is displayed.
 - 3 Press the ⊕ or ⊖ Button.**
 - ⊕: Each time this is pressed, the next image in the forward direction (recorded order) is displayed.
 - ⊖: Each time this is pressed, the next image in the reverse direction (reverse of recorded order) is displayed.
 - Keeping the buttons pressed will change the images continuously.
- Pressing the ⊕ or ⊖ Buttons changes the playback image number as shown in ① in the above figure.
 - Rapidly pressing the ⊕ or ⊖ Button repeatedly will change only the playback image number, sending you directly to the display of the desired image number.
 - If no operations are performed for about two minutes with the power on when using batteries, the power save function automatically turns the power off. (Auto Power Off) You must turn the power on again when you want to operate the camera.
 - The power is not automatically shut off when the AC Adaptor is used.

Displaying the Image Resolution Mode/ Playback Image Number

- 4 Press the No. Button.**
 - You can display or remove this indicator by pressing the No. Button.
 - ② Image resolution mode
 - ③ Playback image number
- The indicator flashes "0" when no further images has been recorded (④).



Viewing on TV

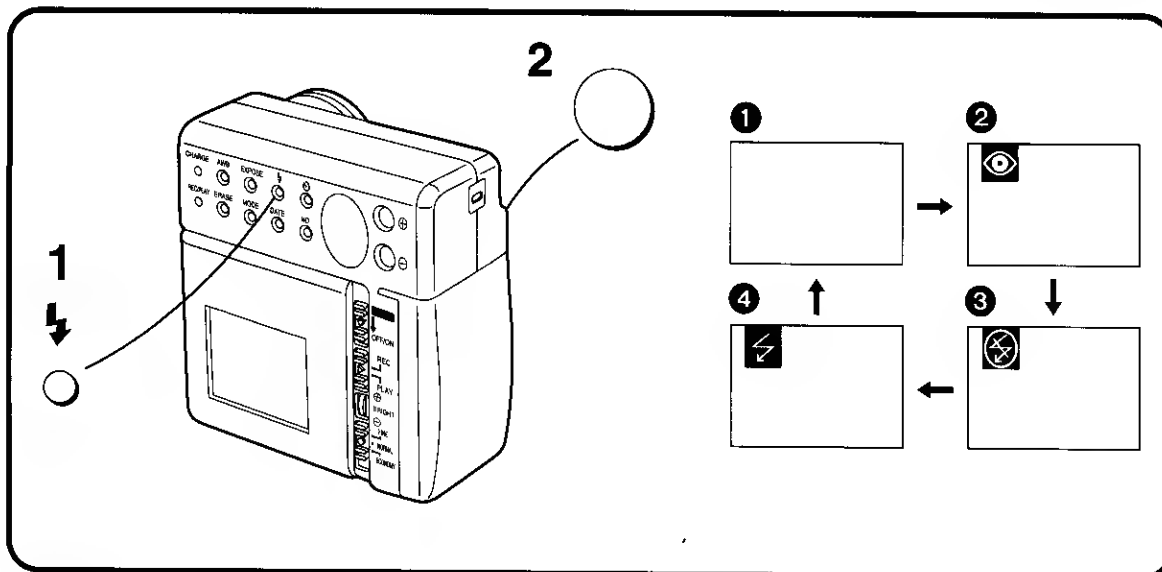
- 1** Connect the camera and TV as shown in the figure.

- ① NTSC VIDEO OUT terminal
- ② Video output cord (supplied)
- ③ To VIDEO IN terminal

- 2** Turn the TV on and switch the input to "VIDEO".

- 3** Use the camera to playback the images.

- When playing back images on the TV, there may be blurring at edges of the images.
- The NTSC VIDEO OUT terminal is for NTSC television systems only.
This terminal cannot be used in Australia, New Zealand and other areas which do not use the NTSC system.



Using the Flash

You can use the flash in dark places.

Be careful not to cover the flash emitter with the fingers when taking images. Even slightly covering the flash will prevent the light for that direction from reaching the subject.

1 Press the Flash Button.

2 Press the Shutter Button.

- The light from the flash has a range of roughly 70 cm to 3 m.
- Be careful not to cover the light sensor with the finger. The sensor will not be able to detect the brightness.
- Under auto flash, the flash goes off depending on the brightness. The ⚡ mark lights up in red to indicate that the flash will go off.
- If charging of the flash is not yet completed, the "⚡" indicator will flash (⦿ appears for red-eye reduction flash). Wait until the indicator lights up. You cannot record images until it lights up.
- The flash setting returns to Auto once the power is turned off.

This camera is provided with the following four types of flashes.

1 Auto (The ⚡ mark lights up in red to indicate that the flash will go off.)

The flash automatically goes off according to the brightness of the surroundings.

2 Red-eye reduction (⦿)

This flash reduces the red reflections in the eyes when the flash goes off. The flash goes off twice—once before recording and then once during recording.

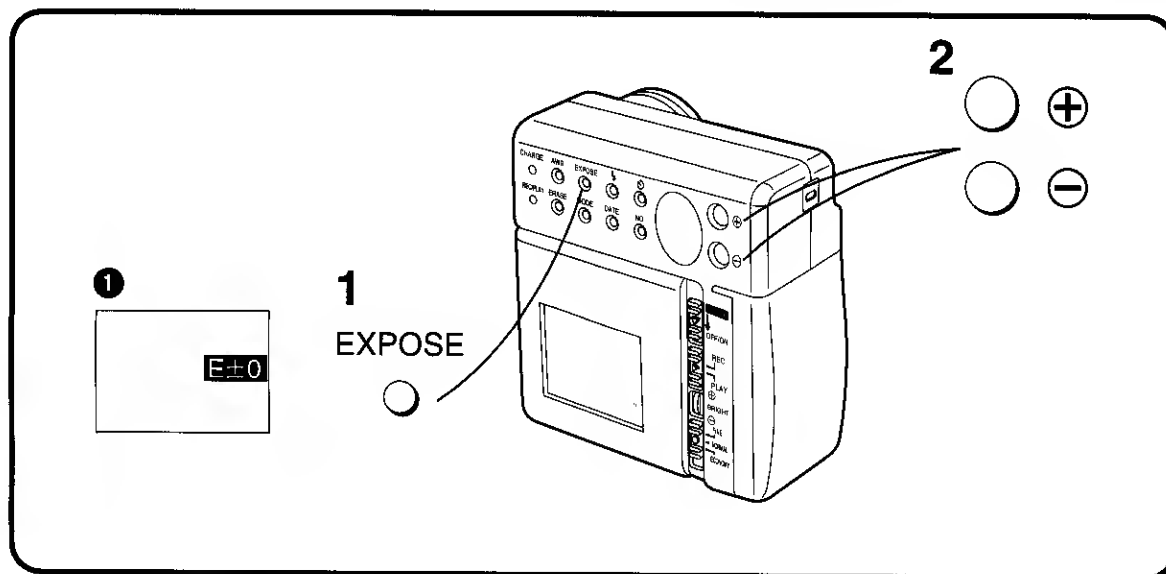
(The flash always goes off regardless of the brightness.)

3 Flash off (⊗)

Depending on the indoor brightness, some pictures can be taken better with the flash off.

4 Flash on (⚡)

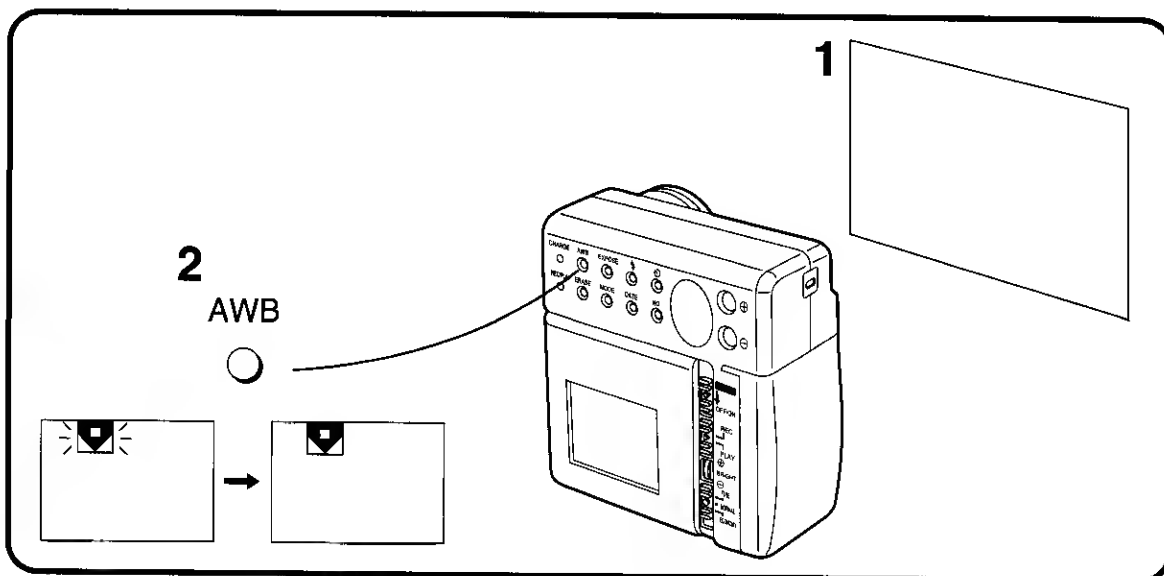
The flash will always go off, regardless of the brightness.



Recording with Brightness Compensation (Exposure Compensation)

The brightness is usually set to Auto.
The brightness can be adjusted manually when the background is too bright or when there is backlight.

- 1 Press the EXPOSE Button.**
 - The compensation value display ($E\pm 0$) appears (1).
 - 2 While viewing the LCD screen, press the \oplus or \ominus Buttons to adjust the value.**
 - The screen becomes brighter each time the \oplus Button is pressed. (up to $E+4$)
 - The screen becomes darker each time the \ominus Button is pressed. (up to $E-4$)
- The exposure can be adjusted to nine levels from $E-4 \leftarrow E\pm 0 \rightarrow E+4$ in $\frac{1}{3}$ EV units. EV stands for Exposure Value.
 - A blue sky may appear whitish when recording with compensated values.
 - The brightness cannot compensate for extreme amounts of backlight.
 - The brightness setting returns to Auto once the power is turned off.



Recording with Manual White Balance

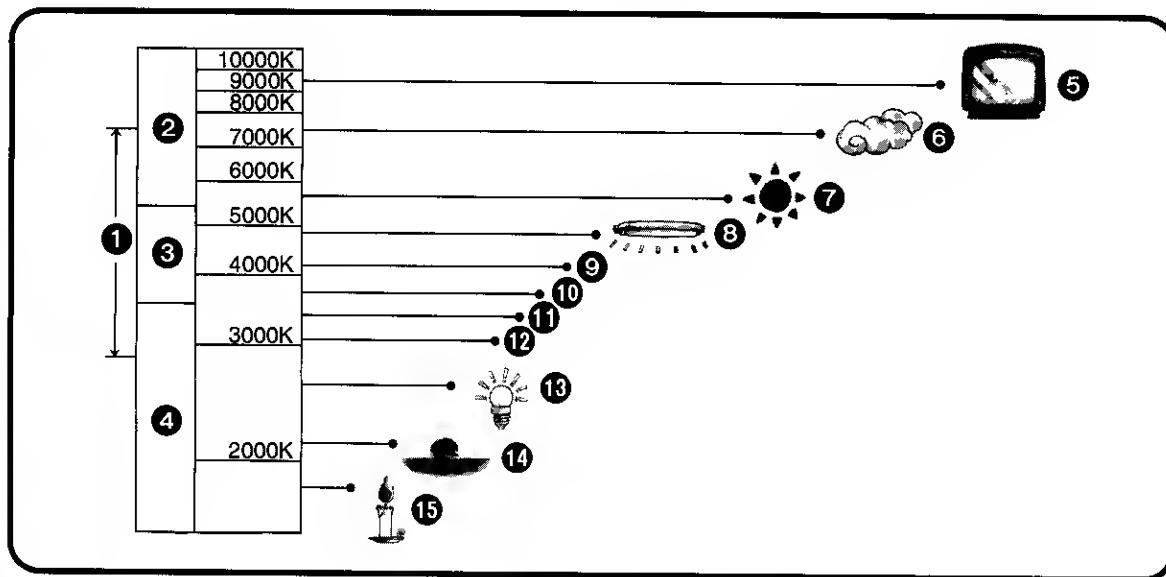
For typical use, the camera is automatically adjusted for natural coloring. Please adjust the white balance if the automatic adjustment is not suitable. The white balance setting returns to Auto once the power is turned off.

- 1** Aim the camera so that the screen is filled completely with a white subject.
- 2** Continue to press the AWB (Automatic White Balance) Button until the "WB" Indicator on the LCD monitor flashes once.

- Manual adjustment may not be suitable for dark places. In this case, record in Auto.
- Once the white balance has been adjusted manually, the setting is stored when the power is turned off. However, the setting returns to Auto when the power is turned on. Therefore, to record under the previous manual adjustment conditions, set to Manual by pressing the AWB Button. (The "WB" indicator lights up.)

To Return to Auto White Balance

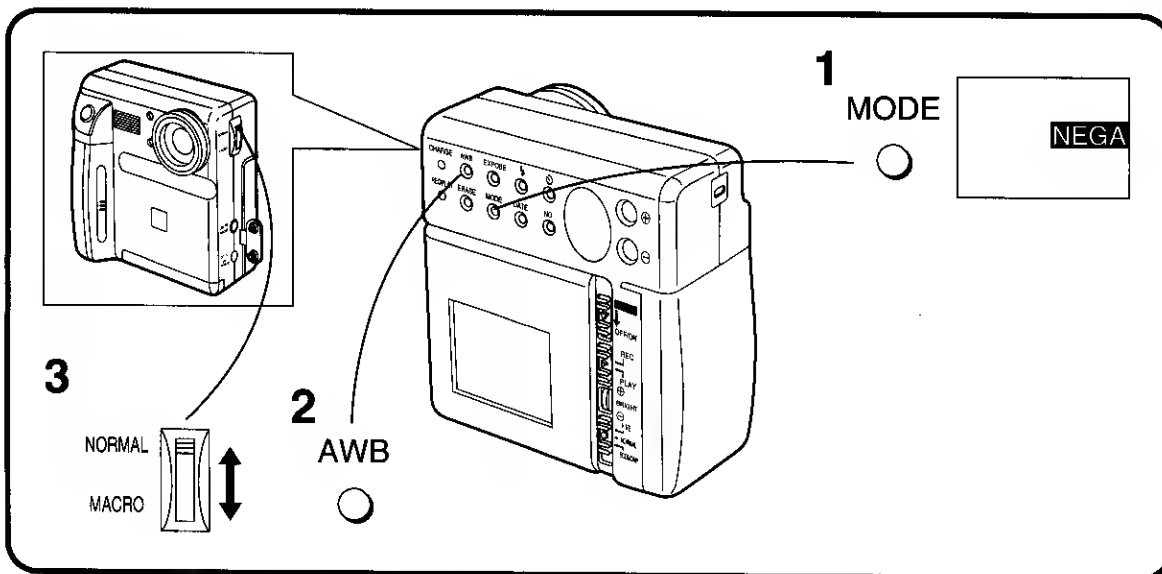
Press the AWB (White Balance) Button so that the "WB" indicator no longer appears on the LCD screen.



White Balance

White balance determines what is white under a variety of light sources. Recognizing what constitutes a white-colored object under sunlight or what constitutes a white-colored object under fluorescent light lets you adjust the balance of the other colors. Since white is the basis of all other colors (light), recognizing the basic white color will allow you to record with natural coloring.

- ① Control range for auto white balance
- ② Bluish color
- ③ Whitish color
- ④ Reddish color
- ⑤ TV screen
- ⑥ Cloudy sky
- ⑦ Sunlight
- ⑧ White fluorescent lamp
- ⑨ Two hours before sunset or after sunrise
- ⑩ One hour before sunset or after sunrise
- ⑪ Halogen light bulb
- ⑫ 30 minutes before sunset or after sunrise
- ⑬ Incandescent light bulb
- ⑭ Sunset or sunrise
- ⑮ Candlelight

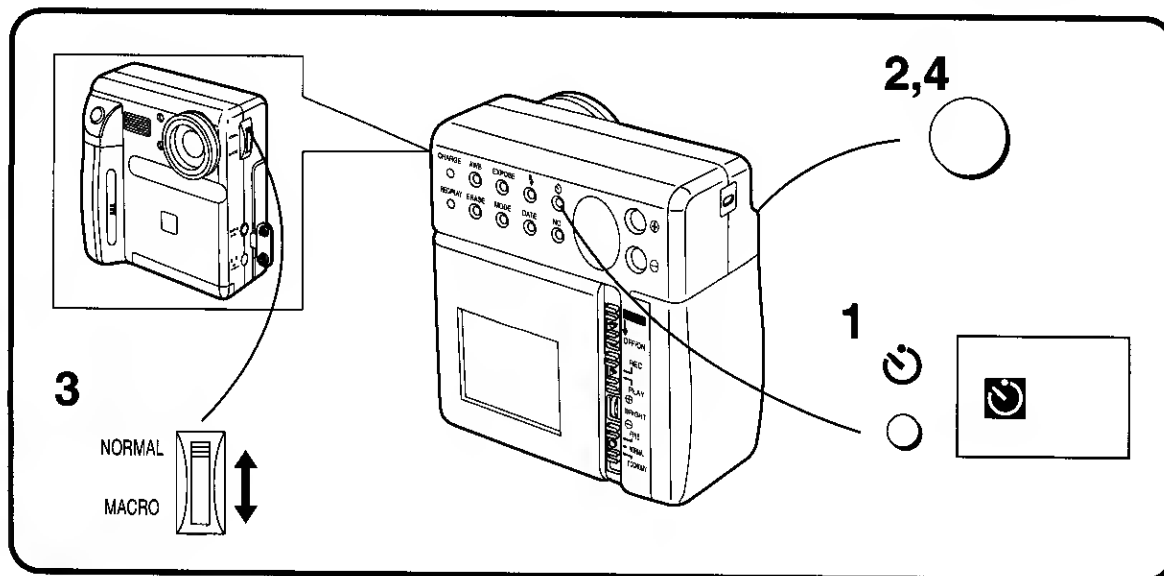


Viewing Photographic Film Negatives as Normal Positive Images

You can view your regular photographic film negatives as normal positive images using "Image Reversal". These images will appear like regular prints. Place the negatives on the special lighting. (available at photography shop)

- 1** Press the Mode Button.
• "NEGA" is displayed.
- 2** Aim the camera at the unexposed section of the negatives so that the LCD screen is filled completely. Then, keep the AWB (White Balance) Button pressed until the "■" Indicator flashes once.
- 3** Move the NORMAL/MACRO Lever to adjust the focus while viewing the negatives.

- Press the Mode Button one more time to return to regular operation. (NEGA is not displayed.)
- The camera returns to regular operation when the power is turned off.
- In some cases, the recorded image may not be clear due to simplified signal processing.



Using the Self-timer

Use the self-timer to include yourself in the pictures you take.

1 Press the Self-timer Button.

- This sets the camera to Self-timer Mode.

2 Press the Shutter Button.

- The self-timer lamp flashes.
- The lamp changes to rapid flashing after about eight seconds, and then takes the picture about two seconds later.

- Mount the camera on a tripod or other stable location.
- You cannot change the shutter operation time.

Recording with Zoom In/Out (Macro)

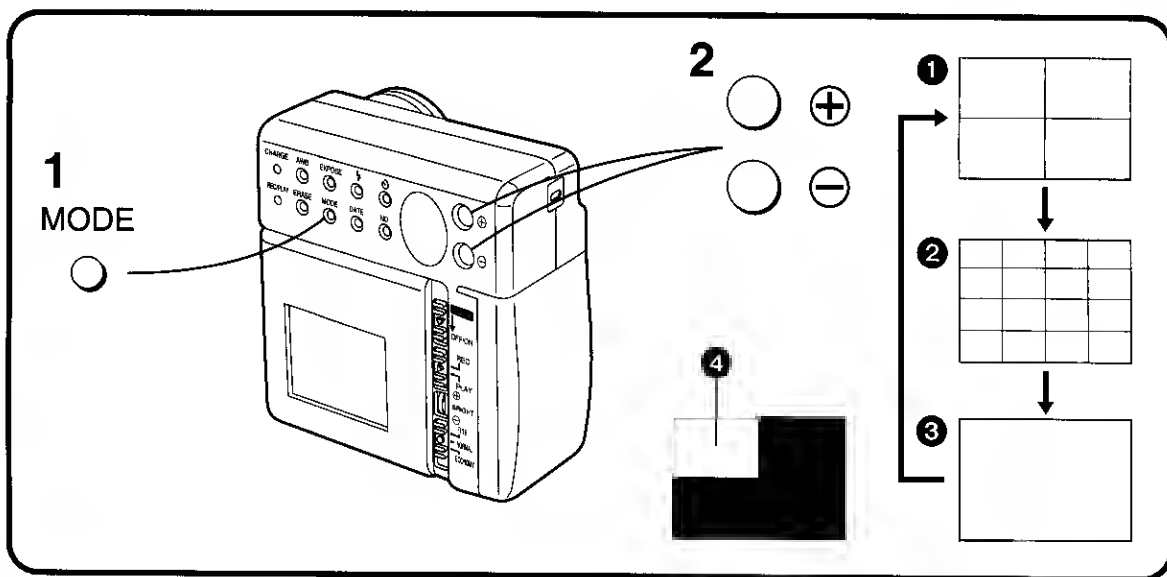
With this feature, you can zoom in and record enlarged images of album photographs, small plants and insects.

3 Come close to the subject while viewing the LCD screen, and move the NORMAL/MACRO Lever to bring the object in focus.

- The object comes into focus in the range from about 3 cm to 70 cm.

4 Press the Shutter Button.

- You can take the picture as near as 3 cm from the subject.
- Be sure to set the flash to Flash Off since the camera is too close to the subject.
- If not using this function, be sure to set the lever completely back to NORMAL.



Viewing Multiple Images on One Screen (Multi-image Playback)

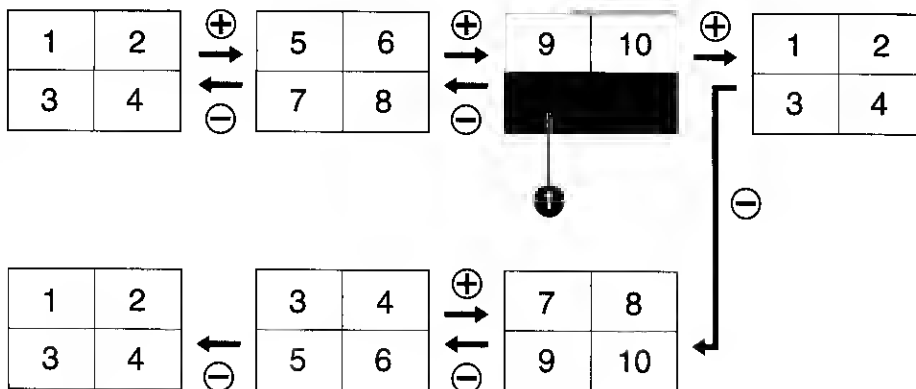
The recorded images can be displayed in order on the LCD screen in groups of 4 or 16. This feature lets you easily check what pictures you have taken.

1 Press the MODE Button.

- Each time the MODE Button is pressed, the recorded images displayed on the LCD screen change from **1** 4 Images → **2** 16 Images → **3** 1 image (regular).

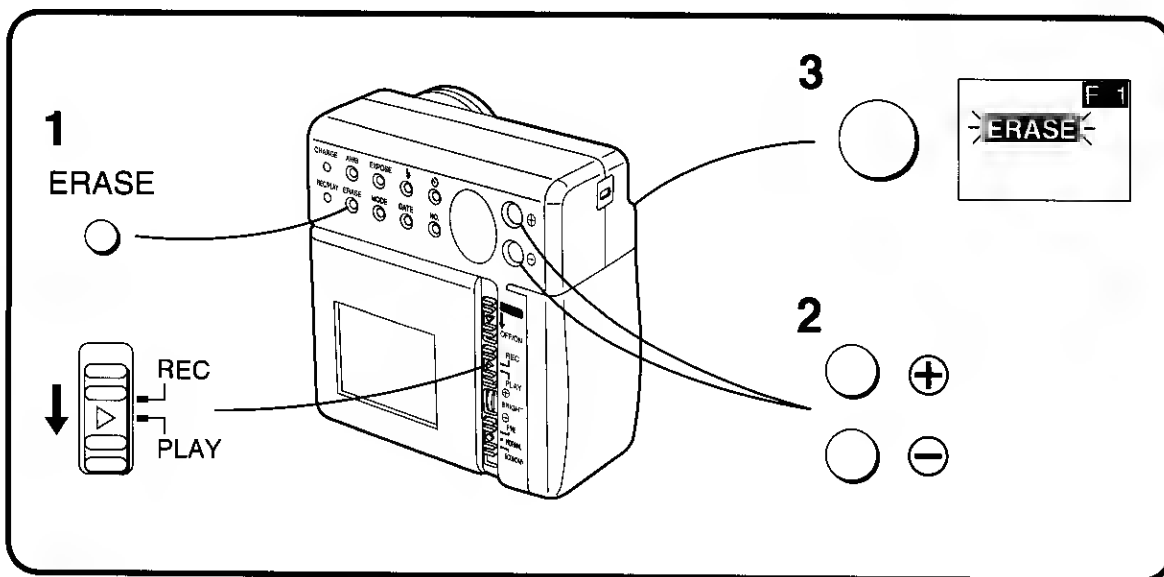
2 Press the ⊕ or ⊖ Buttons as necessary.

- If multi-image playback is started during playback of a regular image, the image displayed when the MODE Button is pressed is first formed at the upper left corner. Then, the subsequent images are formed in the numerical order of the playback images.
- If the camera is set to PLAY immediately after recording and then multi-image playback is selected, only the previously recorded image is displayed at the upper left corner (**4**). The remainder of the screen is black.
- The date and time are not displayed in the 4-image and 16-image modes.
- In some cases, the top and bottom of the image may be cut off.
- The speed at which images are displayed varies from image to image.



Pressing the \oplus or \ominus Button changes the display as shown above.

Example: Displaying four Images when ten Images are recorded (the numbers indicate the image number)
Places with no recorded Images are black (1).



Erasing One Image at a Time

You can erase images while checking them one at a time.

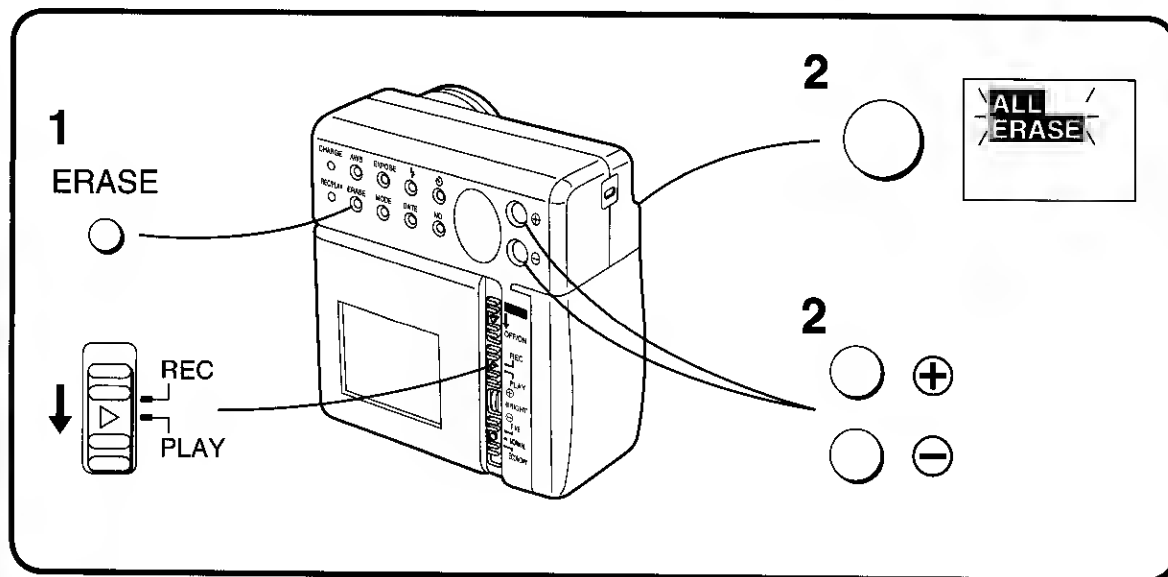
*** Once an image is erased, it cannot be restored.
Check carefully before erasing.**

- 1 Press the ERASE Button once.**
 - This sets the camera to Single ERASE Mode.
- 2 Press \oplus or \ominus to display the image to be erased.**
- 3 Keep the Shutter Button pressed for one second or more.**
 - It takes about one to three seconds to completely erase an image. (During erasure, ERASE flashes.)
 - After erasure, the next recorded image is displayed.
 - The image numbering moves up by one for each erased image.

To Continue Erasing:

Repeat Steps 2 and 3 of the procedure.

- After erasing is finished, press the ERASE Button twice. This cancels ERASE Mode.
- When there are no more images to be erased ("0" is flashing), ERASE Mode is automatically cancelled.
- Do not under any circumstances unplug the AC Adaptor or take out the batteries while erasing (when ERASE or ALL ERASE is flashing). This could damage the format of the card and make it unusable.



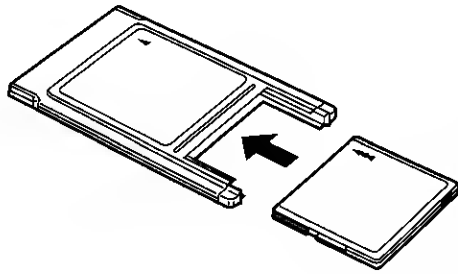
Erasing all Recorded Images

You can erase all the images at once.

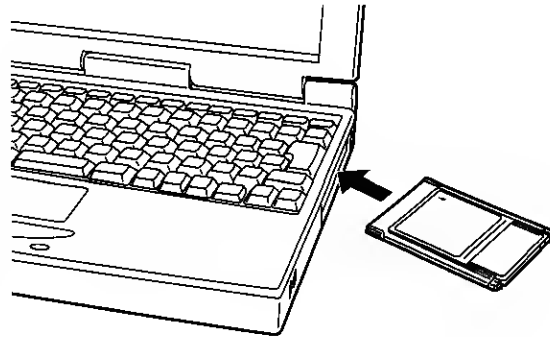
*** This operation will erase all of the recorded images. The erased images cannot be restored. Do not erase until you are completely sure that all images may be erased.**

- 1 Press the ERASE Button twice.**
 - This sets the camera to ALL ERASE Mode.
 - 2 While pressing \oplus and \ominus simultaneously, keep the Shutter Button pressed for one second or more.**
 - The time to erase all images varies depending on the recording contents, but it takes about five seconds to completely erase the images in the supplied CF card.
(During erasure, ALL ERASE flashes.)
 - After erasure, the playback image number "0" flashes on the LCD screen.
- ERASE Mode is automatically cancelled after all images are erased ("0" is flashing).
 - If battery power is cut off while performing ALL ERASE, the camera power is automatically turned off. In this case, all of the images may not be erased. Replace the batteries with new batteries or charged Ni-Cd batteries and perform the ALL ERASE procedure again.
 - This camera cannot erase CF card images or files stored using other cameras, personal computers, or other devices. If such files are present, fewer images can be recorded in the CF card.

1



2



Importing Images Using Your Notebook Computer's PC Card Drive

- 1** Insert a CF card containing recorded images into the PCMCIA adaptor (supplied).
- 2** Insert the PCMCIA adaptor into your notebook computer's PC card drive.
- 3** Open the images using application software which supports JPEG format (available commercially).

•For more details, refer to the Instruction Manual for the application software.

Editing with a Personal Computer Connection kit (for Windows 95)

Operating environment

- This product's software can be installed under the Microsoft® Windows® 95 (hereafter referred to as "Windows 95").

Compatible computer:

- Personal computer with an 80486 or higher CPU; PC/AT or personal computers which can run the Microsoft® Windows® 95.

Graphic display:

- True Color (approx. 16.7 million colors) recommended; operation also possible with 256 colors

Memory size equipment:

- 16MB or more

Hard disk:

- Free memory of 50MB or more

Disk drive:

- CD-ROM drive

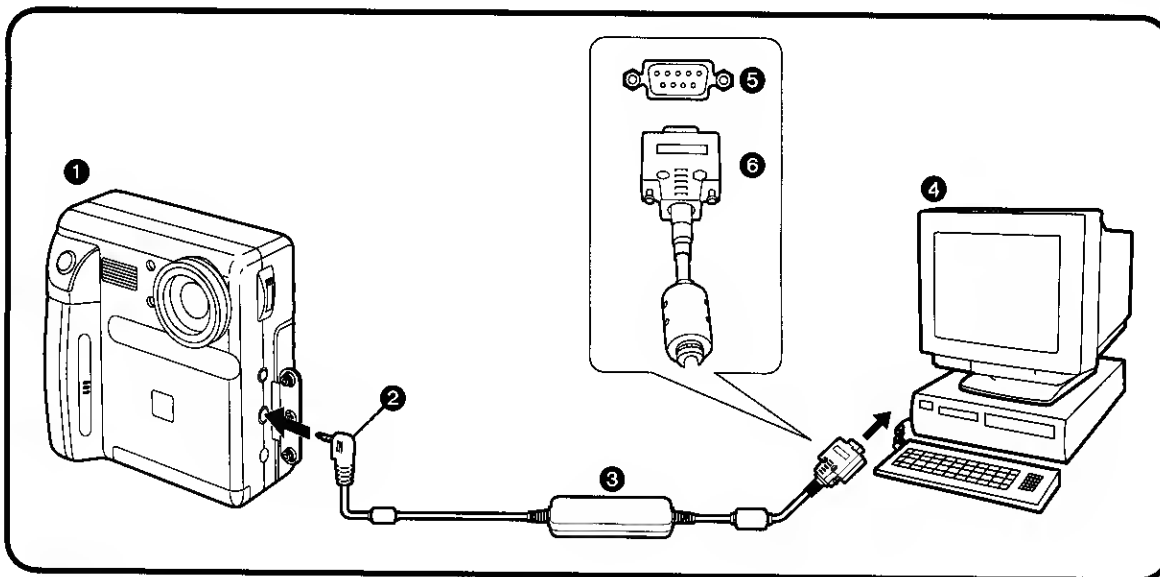
Connectors:

- RS-232C port D-sub 9-pin connector

Other:

- Mouse

- The name of the product you have purchased may differ from the name given in the text of this manual. Similarly, the contents of the screens provided in this manual may not necessarily match what appears on your own screen depending on the operating environment or other conditions.
- The basic operating procedures and terminology relating to the personal computer are not described in this manual. To obtain this information, refer to the instructions of the personal computer.
- "Microsoft Windows" is a trademark of Microsoft Corporation of the United States.
- Other model names, company names, product names, etc. mentioned in this manual are the trademarks or registered trademarks of the companies concerned.



Connections

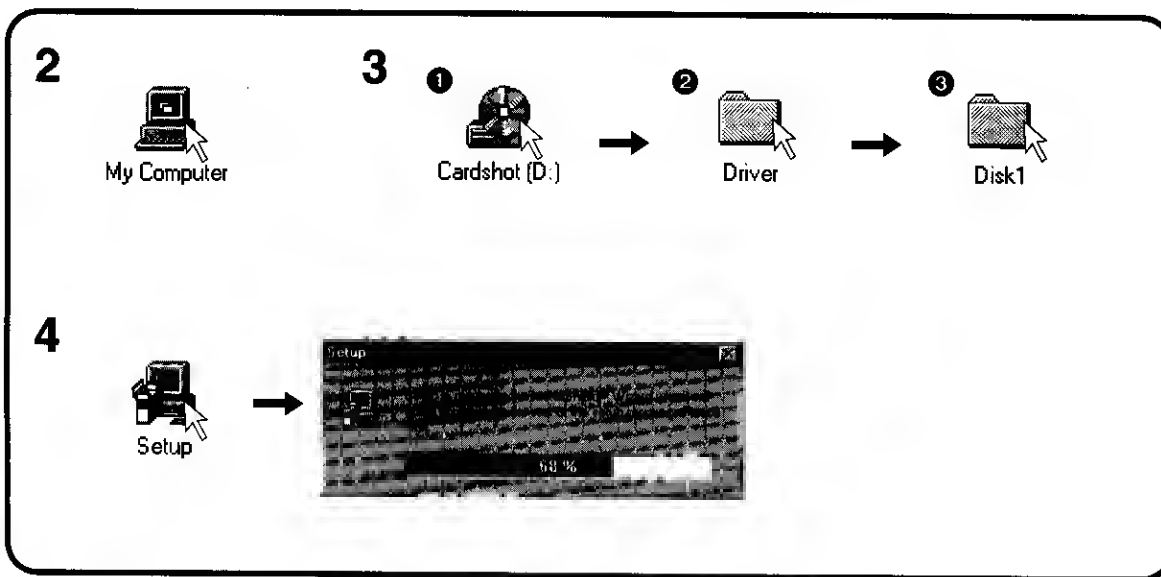
- ① Digital Still Camera
- ② To DIGITAL IN/OUT terminal
- ③ Interface Adaptor
- ④ Personal Computer (sold separately)
- ⑤ RS-232C port on PC/AT machine
- ⑥ Connect as is.

Connection precautions

- Before proceeding with the connections, make sure that the power has been turned off to the personal computer, all the peripherals connected to the personal computer, and the Digital Still Camera.
- Upon completion of the connections, turn on the power to the personal computer and Digital Still Camera.
- The camera connected to the COM2 port may not operate correctly when a serial mouse, modem, or other peripheral is connected to the COM1 port. If this happens, reconnect the camera to the COM1 port.
- When the Personal Computer connection kit is used, it is recommended that the AC Adaptor be used for the camera's power supply.

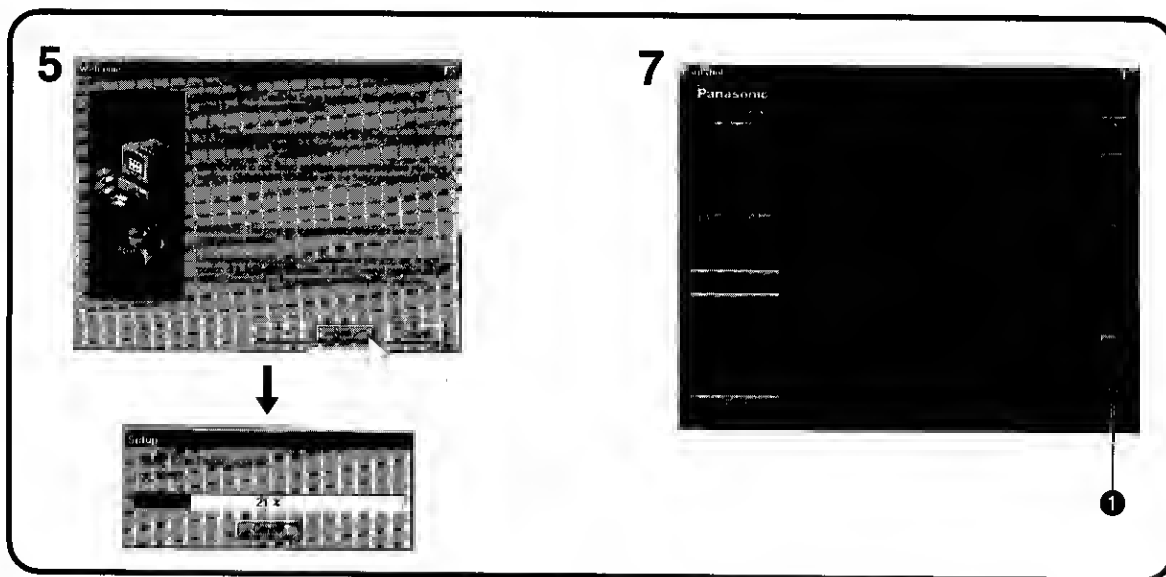
Precaution during connection

- Do not disconnect the Interface Adaptor during operation. Doing so may cause the software to fail to run properly or any data which is being transferred to be lost.



Installation (for Windows 95)

- 1** Insert the CD-ROM provided into the CD-ROM drive of the personal computer.
- 2** Double click on "My computer".
 - The "My computer" folder is now opened.
- 3** Display the "Setup" icon.
 - ①** Double click the CD-ROM icon.
 - ②** Double click the Driver icon.
 - ③** Double click the Disk 1 icon.
 - The contents of the CD-ROM are now displayed.
- 4** Double click on the "Setup" icon.
 - Driver setup (installation) is now commenced.



- 5 After having read through the message displayed, click on the "Next" button.
 - Installation is now commenced.
 - Installation is underway. It is completed when the bar display reaches 100%.
 - This ends the installation procedure.
 - Be sure to read the "ReadMe" file.
 - 6 This driver is used as the Twain-supported application input plug. After it has been installed, start the Twain-supported application.
 - If the Twain-supported application has not yet been installed, proceed with its installation first.
 - 7 With a Twain-supported application, the driver is set as the TWAIN 32 Input plug.
 - The setting procedure for TWAIN 32-supported equipment differs according to the application. Refer to the instructions accompanying the application used.
 - When setting is made, the driver's image loading screen appears.
- The setup screen now appears. Read through the messages on the screen and proceed with the installation.
 - To view details on operation, click on ① to start the help screen.
 - This manual does not describe the installation, operation and other aspects of the application. Refer to the instructions accompanying the application used.

Editing with a Personal Computer Connection kit (for Macintosh)

Operating environment

- This software can be installed in a personal computer which runs System 7.1 or above.

Compatible computer:

- Personal computer with an 68040 or higher CPU is recommended; system which can run System 7.1 or above (Depending on the performance of the CPU, the screen may be displayed with a time lag.)

Graphic display:

- Approx. 16.7 million colors recommended; operation also possible with 256 colors

Memory size equipment:

- 12MB or more
At least 16MB is required with the Power Macintosh.

Hard disk:

- Free memory of 50MB or more

Disk drive:

- CD-ROM drive

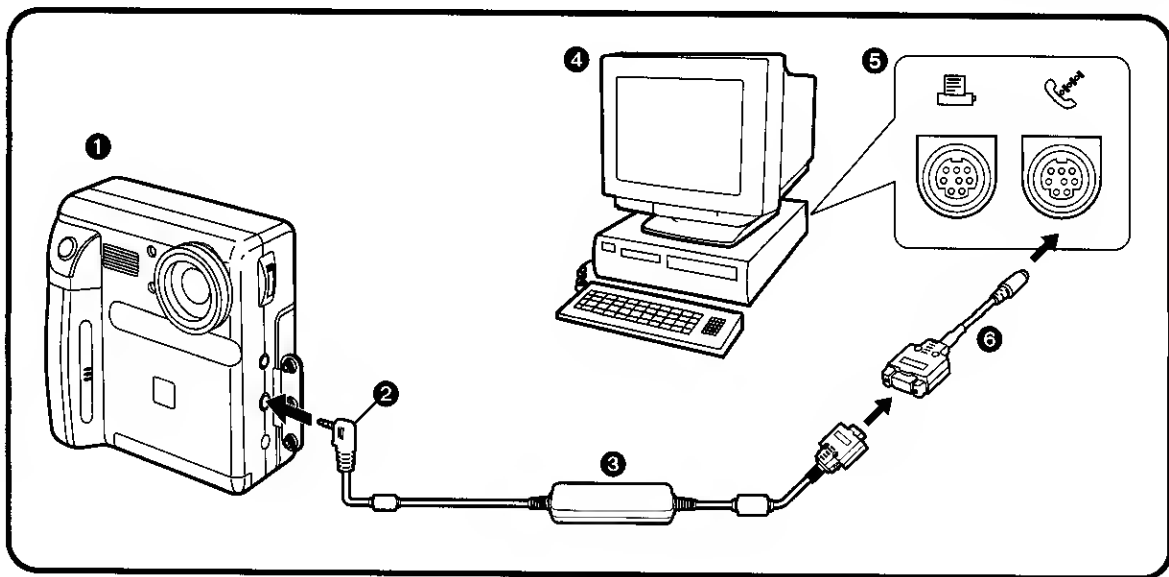
Connectors:

- Serial port (mini DIN 8 pins) (The supplied conversion cable is needed.)

Other:

- Mouse

- The name of the product you have purchased may differ from the name given in the text of this manual. Similarly, the contents of the screens provided in this manual may not necessarily match what appears on your own screen depending on the operating environment or other conditions.
- The basic operating procedures and terminology relating to the personal computer are not described in this manual. To obtain this information, refer to the instructions of the personal computer.
- The name "Apple" and Macintosh and System are registered trademarks or trademarks of Apple Computer Inc.
- Other model names, company names, product names, etc. mentioned in this manual are the trademarks or registered trademarks of the companies concerned.



Connections

- ① Digital Still Camera
- ② To DIGITAL IN/OUT terminal
- ③ Interface Adaptor
- ④ Personal computer (sold separately)
- ⑤ Simply connect to modem port or printer port.
- ⑥ Use the conversion cable (supplied) for the Macintosh.

- If both the modem and printer are in use, disconnect either the modem or printer, and then proceed with the connection described above.

Connecting precautions

- Before proceeding with the connections, make sure that the power has been turned off to the personal computer, all the peripherals connected to the personal computer, and the Digital Still Camera.
- Upon completion of the connections, turn on the power to the personal computer and Digital Still Camera.
- When the PC connection kit is used, it is recommended that the AC Adaptor be used for the camera's power supply.

Precautions during connection

- Do not disconnect the Interface Adaptor during operation. Doing so may cause the software to fail to run properly or any data which is being transferred to be lost.

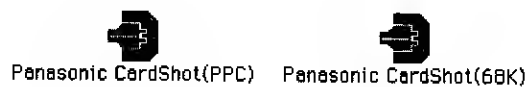
When using LocalTalk

- The interface connector cannot be connected to the printer port when the LocalTalk network is used. (It can be used only after the LocalTalk cable is disconnected and System is disabled.)

When using software which occupies the serial port

- Even when the software concerned is not used, its program may be automatically activated when the personal computer is started up. In this case, cancel the program.

2



3



Installation (for Macintosh)

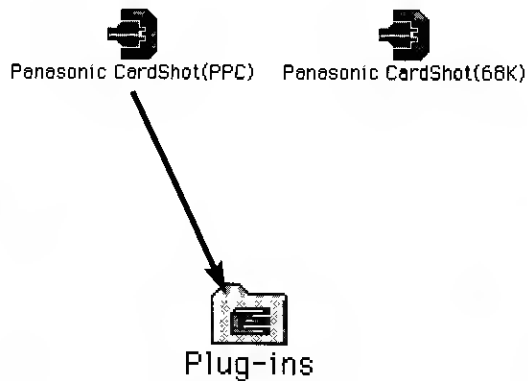
Before use

Double click on the "Read me first" file in the folder. The "Supplementary Notes to Manual" are opened with SimpleText (or TeachText).

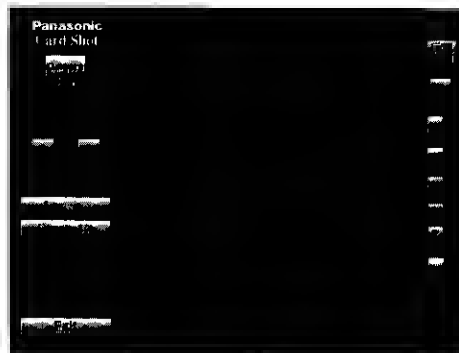
Be absolutely sure to read these notes through before use.

- 1 First, install the plug-In compatible application.**
 - This manual describes the installation of the driver. For details on the installation and operation of the application, refer to the instructions accompanying the application.
- 2 Insert the CD-ROM Into the CD-ROM drive of the personal computer, and open the "Driver" folder.**
- 3 Display the "Plug-In" folder of the plug-In compatible application.**
 - The name or folder configuration may differ according to the application. For details on how to install the Input plug-in, refer also to the instructions accompanying the application.

4



5



4

Copy the plug-in file into the "Plug-in" folder.

- Copy "Panasonic Card Shot (PPC)" for a Power Macintosh or "Panasonic Card Shot (68K)" for a 68K Macintosh.
- With a 68K application, copy "Panasonic Card Shot (68K)" even when you are using a Power Macintosh.
- The file or files can be copied by a drag-and-drop action.

5

In the plug-in compatible application, set this driver as the plug-in input plug.

- When the setting is made, the driver's image loading screen appears.
- The setting procedure for plug-in compatible equipment differs according to the application. Refer to the instructions accompanying the application used.
- For details on operation, refer to the "Read me" file (which is opened by double clicking the icon) on the CD-ROM.

Precautions

Precautions When Using the Digital Still Camera

In the event of abnormal operation (e.g. if the unit emits smoke or an unusual smell), immediately stop operating the unit and consult qualified service personnel.

■ Handling

- Do not disassemble or reconstruct the camera.
- Do not expose the camera to water.
- Do not drop or insert metals or flammable objects into the camera body.
- Do not use while driving a car or other vehicle.
- Do not use in an unstable position.
- Do not touch the metal parts on the camera during a thunderstorm.
- Do not place the camera on an unsteady surface, slanting location, or other unstable location.
- Do not aim the lens directly toward the sun or other strong light source.
- Be careful not to get your fingers caught in the battery cover or when adjusting the angle of the LCD screen.
- Follow the airline's instructions when using on an airplane.
- Do not leave in high-temperature places.
- Do not use in locations with large amounts of soot, steam, humidity, or dust, or locations with severe vibrations.
- If electrical noise forms on the LCD screen during recording, use the camera in a place away from other electronic devices (computers, etc.).
- When using the camera, keep it as far away as possible from objects producing electromagnetic waves (TV, electronic games, etc.).
- When using the camera in the proximity of a radio tower, keep the camera as far away as possible.
- Do not use in the following places.
 - Bathrooms and other places with high humidity
 - Storerooms and other places with large quantities of dust
 - Near heating equipment and other high-temperature places
- When using insecticides and other volatile substances, be careful not to apply them on the camera. Applying these substances may deteriorate the outer case or peel off the paint coating.
- Do not leave rubber products or vinyl products in contact with the camera for long periods of time.
- The camera is not for business use.

■ Carrying Notes

- When carrying the camera, be careful not to drop it or hit it against anything.
- When carrying the camera, handle it carefully and put the camera in the supplied soft case or carry it with the supplied hand strap around your hand so that it does not drop.
- The settings for the switches may be changed if the camera is put in another bag. Check the Image Resolution Mode and other settings before taking a picture.

■ Cleaning Notes

- Before cleaning, first remove the batteries and remove the AC Adaptor power plug from the outlet.
- Plastics are used for the surface of the outer case. Avoid wiping benzine, thinners, or other solvents on the surface since this can deteriorate the outer case or peel off the paint coating.
- Please wipe off any dust with a soft, dry cloth. If the camera is particularly dirty, soak a cloth in kitchen detergent (neutral) diluted with water and wring out thoroughly. Then, wipe off the dust with the cloth, and wipe again with a dry cloth.
- When using a synthetic cloth, follow the instructions in the usage precautions.

■ After Use

- When not using the camera for a long period of time, remove the batteries or remove the AC Adaptor power plug from the outlet.
- Store the camera and batteries in a cool, dry place without wide fluctuations in temperature.
Recommended temperature: 15°C–25°C
Recommended humidity: 40%–60%

■ Condensation

- If condensation occurs on the camera, the lens and LCD screen will cloud up. Take all possible measures to ensure that condensation does not occur, and take adequate care if it does occur.
- Condensation is the forming of water droplets on, for instance, a bottle soon after it is taken out of the refrigerator in the summer.
- Condensation is caused by a difference in temperature and humidity in the following situations.
 - When the camera is taken into a warm room when it is cold outside
 - When the camera is taken outside from a car with the air-conditioning on
 - When a cold room is suddenly heated
 - When the cool air from an air-conditioner blows directly on the camera
 - Places where the air is full of steam and other high-humidity places
- To prevent condensation from forming on the camera, put the camera in a plastic bag and seal it tightly so that air cannot enter when carrying the camera from a cold place to a warm one such as when entering a ski lodge from the slopes.
- If condensation forms on the lens and other parts, turn the power switch to OFF and leave the camera as it is for about one hour. The cloudiness will disappear by itself when the camera adjusts to the surrounding temperature.

■ LCD Screen

- The LCD screen is made with the highest precision technology. At least 99.98% of the pixels are effective, but up to 0.02% of the pixels may be defective or remain lit constantly.
- Do not press strongly on the LCD screen. This can produce irregularities in the screen and cause a malfunction.
- When using in a cold location, the screen may be slightly darker than usual at first. When the temperature of the main unit rises, the screen will display its normal brightness.
- If a fingerprint or other mark is adhering to the screen, wipe it off lightly with the LCD screen cloth (supplied).
- Fluorescent Tubes in the LCD Screen
Special fluorescent tubes are used as the internal lighting device for the LCD screen. Darkening or flickering of the screen or fading of the displayed image may indicate that the service life of the tubes has come to an end and that the special fluorescent tubes should be replaced.

Precautions for the CF Card

■ Types

- Compact Flash is a registered trademark of SanDisk Corporation.
- Some commercially available CF cards may not be compatible with this camera. CF cards displaying the "SanDisk" mark are compatible with this camera.

■ Handling

- Do not bend or subject the card to severe stress.
- Do not store the card in places with a high temperature, high humidity, large amounts of dust, or where static electricity or electromagnetic waves are prone to occur.
- Do not let dust, water, or foreign objects adhere to the terminals.

■ Image Data

- The recorded image data is digitally recorded. Therefore, the recorded data can be erased and recorded again.
- Use a personal computer to erase CF card images or files stored using other cameras, personal computers, or other devices.
- The recorded data may be lost if the customer or a third party misuses the card, subjects the card to static electricity or electric shock, or during breakdown or repair of the card. Please be aware that Panasonic shall bear no responsibility for compensating for damages due to recorded data that is lost.

Precautions for the AC Adaptor

- If the AC Adaptor emits smoke, becomes unusually hot, or emits an unusual smell, discontinue use immediately and take the power plug out of the outlet.
- If the outer case of the AC Adaptor is broken, discontinue use and take the power plug out of the outlet.
- If water or any foreign objects get inside the AC Adaptor, discontinue use and take the power plug out of the outlet.
- If the DC power cable is worn away (the core wires are exposed), discontinue use and take the power plug out of the outlet.
- When using the AC Adaptor, do not exceed the rated limits of the power outlet or wiring equipment, and do not use in outlets outside the AC 230–240 V range.
- Do not use the AC Adaptor with the power plug not fully connected.
- Do not damage the DC power cable or power plug.
- Remove any dust or other substances adhering to the power plug.
- Do not cause a short-circuit in the power plug.
- Do not deform the power plug.
- Do not disassemble or reconstruct the AC Adaptor.
- Do not touch the power plug or metal parts of the AC Adaptor during a thunderstorm.
- Do not insert metals or flammable objects into the AC Adaptor.
- Do not expose the AC Adaptor to water.
- Do not use in the following places.
 - Bathrooms and other places with high humidity
 - Storerooms and other places with large quantities of dust
 - Near heating equipment and other high-temperature places
- Do not place the AC Adaptor on an unsteady surface, slanting location, or other unstable location.
- Do not move the AC Adaptor while it is still connected to the power outlet.
- Do not insert or take the power plug out of the outlet with wet hands.
- Do not use in locations with large amounts of soot, steam, humidity, or dust, or locations with severe vibrations.
- Do not leave in high-temperature places.
- While charging or using the AC Adaptor, do not let it touch any paper or cloth.
- For greatest safety, remove the power plug from the outlet when cleaning the AC Adaptor or when not using it for an extended period of time.
- Do not take the rechargeable Ni-Cd batteries out of the digital still camera while it is charging. The CHARGE lamp may not go out after charging.
- The Ni-Cd batteries may become warm after charging or after use. This is not a malfunction.
- When used near a radio, the AC Adaptor may interfere with radio reception (particularly when receiving AM signals). Make sure the AC Adaptor is at least one meter from any radio.
- When using the AC Adaptor, a humming noise may be emitted from the inside of the AC Adaptor. This is not a malfunction.
- After using the AC Adaptor, be sure to remove the power plug from the outlet.

Precautions for the Alkaline Batteries and Rechargeable Ni-Cd Batteries

- Be sure to use only the rechargeable Ni-Cd batteries supplied with this camera.
- Always charge the rechargeable Ni-Cd batteries with this camera.
- Insert the batteries correctly by following the pole indicators (for the plus \oplus and minus \ominus poles).
- Do not throw the batteries into fire, disassemble, treat (soldering, etc.), heat, or apply excessive pressure (driving a nail, etc.) to the batteries.
- Do not bring the batteries into contact with other metals (wiring, necklaces, etc.). When carrying or storing the batteries, insert them into the battery case to prevent contact with metal objects.
- In the event that fluid leaks from the batteries, wash off thoroughly with water if any fluid gets on the hands or clothes.
- Loss of eyesight may result if the fluid gets into the eyes. Immediately wash with clean water without rubbing and then consult a physician.
- The rechargeable Ni-Cd batteries are not charged before shipping. Be sure to fully charge the batteries before using them.
- Charge the batteries in a location having a temperature between 5°C – 40°C .
- To maximize the operation period of the rechargeable Ni-Cd batteries, before charging it is recommended that you use up the power in the batteries until the camera can no longer record or playback.
- Recharging Ni-Cd batteries which have already been charged may shorten the life of the batteries.
- An extremely short operation period for batteries which have just been charged indicates that the service life has come to an end. Replace with new batteries.
- After using the Ni-Cd batteries in the Digital Still Camera, the batteries may be warm. This is not a malfunction.
- Remove the batteries if the Digital Still Camera will not be used for a long period of time.
- Do not soil the terminal sections.
- Store the batteries in a location with a temperature between 15°C – 25°C . Do not store the batteries in places that are extremely cold, hot and humid, or places with large amounts of soot.
- If storing the batteries for an extended period of time, once a year it is recommended that you first charge the batteries, and then use up the charged power with the Digital Still Camera before storing the batteries again.

Precautions for the Personal Computer Connection Kit

- All rights pertaining to this manual and software belong to Matsushita Electric Industrial Co., Ltd. (hereafter referred to as the "Manufacturer")
- It is strictly forbidden to copy, reproduce or transfer this manual or software either in part or in its entirety without written permission.
- This manual and software may be used only if you accept the terms and conditions of the "Software License Agreement" which accompanies these products.
- The contents of this manual are subject to changes without notice at any future point in time.
- Every effort has been made to ensure that this manual and software are free from errors, omissions or ambiguities.
However, should you come across any, please bring them to our notice.
- Matsushita Electric Industrial Co., Ltd. and their dealers and retail agents, etc. offer no guarantees whatsoever in connection with this manual and software. Furthermore, they assume no responsibility for the results or effects which are produced by the use of this manual or software.
- The sample data recorded on the software can be used for the entertainment purposes of the individual user only.
If that data is to be used for commercial gain, the consent of the holder of the software rights is required.
- Do not take hold of the cord to disconnect it.
Do not forcibly bend or pull the cord.
- Do not use the cord while it is stretched taut.

Specifications

Digital Still Camera

Information for Your Safety

Power Supply:	LR6 alkaline batteries×3, or Ni-Cd batteries (main unit rechargeable type)×3, or Special AC Adaptor
Power Consumption:	During recording: 4.2 W During playback: 2.7 W

Format:	Digital Still Camera (recording and playback type)
Recording Format:	JPEG
Recording Medium:	CF (Compact Flash) Card (2 MB supplied)
Recordable Images:	Approx. 11 images (FINE) (When using the 2 MB CF card) Approx. 23 images (NORMAL) (When using the 2 MB CF card) Approx. 47 images (ECONOMY) (When using the 2 MB CF card)
Erase:	Single Image Erasure, All Image Erasure
Recorded Image Elements:	1/3-inch VGA Progressive Scan CCD 350,000 pixels (total) 330,000 pixels (effective)
Number of Recorded Pixels:	640×480 pixels
White Balance:	Auto/Manual
Lens:	F2.8 f=6.0 mm 3-set 4-lens configuration
Photometry System:	TTL central focus photometry system
Exposure Control:	Auto (with manual compensation)
Recordable range:	0.03 m-∞ 0.03 m-0.7 m (MACRO Range)
Shutter Speed:	1/4-1/2,000 second (electronic)
Sensitivity:	ISO120 equivalent
LCD Screen:	1.8-inch M.I.M.-type color liquid crystal (312×230)
Recording Interval:	10 seconds (including the flash charging time)
Flash Range:	0.7 m-3.0 m
Flash Modes:	Auto, Red-eye Reduction, Flash On/Off
Self-timer:	10 seconds
Date and Time:	Stored with the image data
Auto Calendar Function:	Until the year 2095
Video Output Terminal:	Mini-jack NTSC color 1 Vp-p 75 Ohm
Digital IN/OUT Terminal:	Serial interface (connected with the special-purpose connection cable)
Recommended Operating Temperature:	0°C-40°C (during operation)
Allowable Relative Humidity:	30%-80% (during operation)

External Dimensions: Approx. 93 (W)×94 (H)×51.3 (D) mm (Excluding protruding parts)

Weight: Approx. 290 g (without batteries, CF card)

AC Adaptor

Information for Your Safety

Power Supply:	AC 230-240 V 50/60 Hz
Power Consumption:	10 W
DC Output:	6 V, 800 mA

External Dimensions: Approx. 61 (W)×58 (H)×86 (D) mm (Excluding plug and DC power cable)

Weight: Approx. 490 g

Personal Computer Connection Kit

Information for Your Safety

Power Source:	DC 5 V
Power Consumption:	0.05 W

Before Requesting Service

Power Supply

Symptom	Cause	Action	Page
The camera does not turn on.	•The batteries are used up.	•Use new alkaline batteries or charge the rechargeable Ni-Cd batteries.	7, 9
	•The battery poles are not in the correct direction.	•Check that the ⊕ and ⊖ poles of the batteries are inserted correctly.	7
	•The AC Adaptor is not connected correctly.	•Connect correctly.	8
The batteries cannot be charged.	•You are not using the supplied rechargeable Ni-Cd batteries.	•Use the supplied rechargeable Ni-Cd batteries.	9, 41
The power turns off soon after turned on.	•The batteries are used up.	•Use new alkaline batteries or charge the rechargeable Ni-Cd batteries.	7, 9
	•The rechargeable Ni-Cd batteries have not been completely charged.	•Charge until the CHARGE lamp goes out.	9
	•The service life of the rechargeable Ni-Cd batteries has been used up.	•Replace with new batteries.	—
	•Alkaline batteries are being used in a low-temperature place.	•Alkaline batteries do not operate well in places with low temperature. Use the rechargeable Ni-Cd batteries.	7
The power shuts off by itself.	•The Auto Power Off function is operating.	•Turn the power back on.	15, 18

Recording

No picture is taken when the Shutter Button is pressed.	•The REC/PLAY switch is not set to REC.	•Set the REC/PLAY switch to "REC".	15
	•There is no recordable CF card inserted in the camera.	•Insert a recordable CF card.	10
	•The maximum number of recordable images has been recorded.	•Erase any unnecessary images.	28, 29
	•The camera is set to Self-timer recording.	•The shutter is triggered after about 10 seconds. Also, you can cancel the Self-timer Mode.	25
	•The flash is charging.	•Wait for a few moments.	20
The display or images on the LCD screen are not clear.	•The LCD brightness is not properly adjusted.	•Adjust using the LCD brightness knob.	17
	•The LCD screen is being pressed down.	•Take care not to press down on the LCD screen.	15
	•Dust or other marks are adhering to the screen.	•Wipe it off lightly with the supplied LCD screen cloth.	40
	•The service life of the fluorescent tubes has been used up.	•Contact your nearest Repair Service Center about replacement of the fluorescent tubes.	40
Objects do not come into focus.	•The NORMAL/MACRO Lever is set to MACRO.	•Set the NORMAL/MACRO Lever to NORMAL.	25
The flash does not go off.	•The flash is set to Flash Off.	•Set to a flash mode other than Flash Off.	20
The image does not have natural coloring.	•The white balance is set to Manual.	•Adjust manually or return the setting to Auto.	22
	•The required white balance for recording is beyond the adjustment range.	•If the white balance is not adjusted manually, return the setting to Auto.	22

Playback

The images do not play back.	•The REC/PLAY switch is not set to PLAY.	•Set the REC/PLAY switch to "PLAY".	18
	•There is no CF card with recorded images inserted into the camera.	•Insert a CF card with recorded images.	10
	•All of the images in the recorded CF card have been erased.	•No images can be played back.	28, 29
No playback images are displayed on TV.	•The TV is not connected correctly.	•Connect correctly.	19
	•The TV is not a NTSC television system.	•Images can be played back only on NTSC television systems.	19

Others

The images cannot be input to the personal computer.	•The personal computer is not connected correctly.	•Carefully read the instruction manual for the personal computer.	31–38
--	--	---	-------

A

Printed in Japan
VQT6994
F0797Y0 (500 (A))

D



Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan